

Cited in Search Notes

| L Number | Hits | Search Text | DB | Time stamp |
|----------|---------|---|---|------------------|
| 1 | 6408 | 430/944,945,281.1,286.1,287.1.ccls. 101/463.1,456,457.ccls. | USPAT; US-PGPUB | 2004/02/12 15:40 |
| 2 | 97 | (430/944,945,281.1,286.1,287.1.ccls. 101/463.1,456,457.ccls.) and @pd>20031201 | USPAT; US-PGPUB | 2004/02/12 15:41 |
| 3 | 894 | 430/284.1,285.1.ccls. | USPAT; US-PGPUB | 2004/02/12 15:43 |
| 4 | 355 | 430/284.1,285.1.ccls. not (430/944,945,281.1,286.1,287.1.ccls. 101/463.1,456,457.ccls.) | USPAT; US-PGPUB | 2004/02/12 15:42 |
| 5 | 1270 | 430/284.1,285.1.,273.1.ccls. | USPAT; US-PGPUB | 2004/02/12 15:43 |
| 6 | 2742 | 430/284.1,285.1.,273.1,911,910,916,920,922,914,925,926.ccls. | USPAT; US-PGPUB | 2004/02/12 15:45 |
| 7 | 1466 | 430/284.1,285.1.,273.1,911,910,916,920,922,914,925,926.ccls. not (430/944,945,281.1,286.1,287.1.ccls. 101/463.1,456,457.ccls.) | USPAT; US-PGPUB | 2004/02/12 15:45 |
| 8 | 408 | (430/284.1,285.1.,273.1,911,910,916,920,922,914,925,926.ccls. not (430/944,945,281.1,286.1,287.1.ccls. 101/463.1,456,457.ccls.)) and (lithogr\$ planogr\$ offset) and printing | USPAT; US-PGPUB | 2004/02/12 15:51 |
| 9 | 2 | ("5888700") or ("5776655").PN. | USPAT; US-PGPUB | 2004/02/12 16:11 |
| - | 589 | 430/944.ccls. | USPAT; US-PGPUB | 2003/04/30 17:22 |
| - | 309 | 430/944.ccls. and (430/269-309.ccls.) | USPAT; US-PGPUB | 2003/04/30 17:37 |
| - | 1 | 6309792.pn. | USPAT; US-PGPUB | 2003/04/30 17:38 |
| - | 2 | ("6309792").PN. | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/04/30 17:57 |
| - | 1 | 2000-571946.NRAN. | DERWENT | 2003/04/30 17:57 |
| - | 1 | ("20020155375").PN. | USPAT; US-PGPUB | 2003/05/01 11:04 |
| - | 1752 | (430/302).CCLS. | USPAT; US-PGPUB | 2003/05/01 13:11 |
| - | 2564 | (430/281.1,287.1,286.1,273.1.).CCLS. | USPAT; US-PGPUB | 2003/05/01 13:12 |
| - | 193 | ((430/302).CCLS.) and ((430/281.1,287.1,286.1,273.1.).CCLS.) | USPAT; US-PGPUB | 2003/05/01 14:05 |
| - | 3839 | cellulose adj acetate adj phthalate and (acid number) | USPAT; US-PGPUB | 2003/05/01 14:05 |
| - | 55 | cellulose adj acetate adj phthalate and (acid adj number) | USPAT; US-PGPUB | 2003/05/01 14:07 |
| - | 12 | cellulose adj acetate adj phthalate same (acid adj number) | USPAT; US-PGPUB | 2003/05/01 14:26 |
| - | 1 | ("5756261").PN. | USPAT; US-PGPUB | 2003/05/01 14:24 |
| - | 9 | cellulose adj acetate adj phthalate same (acid adj value) | USPAT; US-PGPUB | 2003/05/01 14:27 |
| - | 25485 | (acid saponification) adj (number value) | USPAT; US-PGPUB | 2003/05/01 14:28 |
| - | 18640 | (planograph? lithograph? offset) same (printing) | USPAT; US-PGPUB | 2003/05/01 14:34 |
| - | 1725840 | s ((acid saponification) adj (number value)) and ((planograph? lithograph? offset) same (printing)) | USPAT; US-PGPUB | 2003/05/01 14:29 |
| - | 1000 | ((acid saponification) adj (number value)) and ((planograph? lithograph? offset) same (printing)) | USPAT; US-PGPUB | 2003/05/01 14:29 |
| - | 108349 | 430/\$.ccls. or 101/\$.ccls. | USPAT; US-PGPUB | 2003/05/01 14:30 |
| - | 589 | ((acid saponification) adj (number value)) and ((planograph? lithograph? offset) same (printing))) and (430/\$.ccls. or 101/\$.ccls.) | USPAT; US-PGPUB | 2003/05/01 14:30 |
| - | 251352 | ir or i adj r or infrared or infra adj red | USPAT; US-PGPUB | 2003/05/01 14:31 |

CYRILIA HAMILTON
PRIMARY EXAMINEE

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Cyrilia Hamilton

EAST DATABASE Search History

Search History 2/12/04 4:11:40 PM Page 1
C:\APPS\east\workspaces\10040241.wsp

02/12/04

| | | | | |
|---|-------|---|----------------------|------------------|
| - | 217 | ((((acid saponification) adj (number value)) and ((planograph? lithograph? offset) same (printing))) and (430/\$.ccls. or 101/\$.ccls.)) and (ir or i adj r or infrared or infra adj red) | USPAT; US-PGPUB | 2003/05/01 14:31 |
| - | 74 | ((((acid saponification) adj (number value)) and ((planograph? lithograph? offset) same (printing))) and (430/\$.ccls. or 101/\$.ccls.)) and (ir or i adj r or infrared or infra adj red)) and 430/281.1-288.1.ccls. | USPAT; US-PGPUB | 2003/05/01 14:32 |
| - | 1672 | ((planograph? lithograph? offset) same (printing)) and (430/\$.ccls. or 101/\$.ccls.) and (ir or i adj r or infrared or infra adj red) | USPAT; US-PGPUB | 2003/05/01 14:34 |
| - | 22929 | polymethylmethacrylate or poly adj methylmethacrylate or poly adj methyl and methacrylate | USPAT; US-PGPUB | 2003/05/01 14:35 |
| - | 174 | ((planograph? lithograph? offset) same (printing)) and (430/\$.ccls. or 101/\$.ccls.) and (ir or i adj r or infrared or infra adj red)) and (polymethylmethacrylate or poly adj methylmethacrylate or poly adj methyl and methacrylate) | USPAT; US-PGPUB | 2003/05/01 14:38 |
| - | 30 | ((planograph? lithograph? offset) same (printing)) and (430/\$.ccls. or 101/\$.ccls.) and (ir or i adj r or infrared or infra adj red)) and (polymethylmethacrylate or poly adj methylmethacrylate or poly adj methyl and methacrylate) and (430/281.1-288.1.ccls.) | USPAT; US-PGPUB | 2003/05/01 14:38 |
| - | 1 | ("5629354").PN. | USPAT; US-PGPUB | 2003/05/01 15:22 |
| - | 1 | ("5776655").PN. | USPAT; US-PGPUB | 2003/05/01 15:22 |
| - | 1 | ("5759742").PN. | USPAT; US-PGPUB | 2003/05/01 15:23 |
| - | 1 | ("5888700").PN. | USPAT; US-PGPUB | 2003/05/01 15:23 |
| - | 1 | de-19906823-\$.did. | EPO; JPO; DERWENT | 2003/05/01 15:26 |
| - | 1 | 2000-571946.NRAN. | DERWENT | 2003/05/01 15:27 |
| - | 2 | jp-2001159819-\$.did. | EPO; JPO; DERWENT | 2003/10/30 15:08 |

\$

Cited in
search
Notes

STN Database
Transcript

Welcome to STN International! Enter x:x

LOGINID:sssptaul56cxh

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

Printed
Out
02-12-2004

for SN10-040,241
Performed by
Exmer Cynthia
Hamilton

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NEWS 2 Apr 08 "Ask CAS" for self-help around the clock
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NEWS 4 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN
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now available on STN
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NEWS 7 Sep 03 JAPIO has been reloaded and enhanced
NEWS 8 Sep 16 Experimental properties added to the REGISTRY file
NEWS 9 Sep 16 CA Section Thesaurus available in CAPLUS and CA
NEWS 10 Oct 01 CASREACT Enriched with Reactions from 1907 to 1985
NEWS 11 Oct 24 BEILSTEIN adds new search fields
NEWS 12 Oct 24 Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 13 Nov 18 DKILIT has been renamed APOLLIT
NEWS 14 Nov 25 More calculated properties added to REGISTRY
NEWS 15 Dec 04 CSA files on STN
NEWS 16 Dec 17 PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 17 Dec 17 TOXCENTER enhanced with additional content
NEWS 18 Dec 17 Adis Clinical Trials Insight now available on STN
NEWS 19 Jan 29 Simultaneous left and right truncation added to COMPENDEX,
ENERGY, INSPEC
NEWS 20 Feb 13 CANCERLIT is no longer being updated
NEWS 21 Feb 24 METADEX enhancements
NEWS 22 Feb 24 PCTGEN now available on STN
NEWS 23 Feb 24 TEMA now available on STN
NEWS 24 Feb 26 NTIS now allows simultaneous left and right truncation
NEWS 25 Feb 26 PCTFULL now contains images
NEWS 26 Mar 04 SDI PACKAGE for monthly delivery of multifile SDI results
NEWS 27 Mar 19 APOLLIT offering free connect time in April 2003
NEWS 28 Mar 20 EVENTLINE will be removed from STN
NEWS 29 Mar 24 PATDPAFULL now available on STN
NEWS 30 Mar 24 Additional information for trade-named substances without
structures available in REGISTRY
NEWS 31 Apr 11 Display formats in DGENE enhanced
NEWS 32 Apr 14 MEDLINE Reload
NEWS 33 Apr 17 Polymer searching in REGISTRY enhanced
NEWS 34 Apr 21 Indexing from 1947 to 1956 being added to records in CA/CAPLUS
NEWS 35 Apr 21 New current-awareness alert (SDI) frequency in
WPIDS/WPINDEX/WPIX
NEWS 36 Apr 28 RDISCLOSURE now available on STN

NEWS EXPRESS April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT
MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS INTER General Internet Information
NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

Dates
4-30-2003
5-01-2003

CYNTHIA HAMILTON
PRIMARY EXAMINER

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File
Cynthia Hamilton

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 15:26:51 ON 30 APR 2003

| => file reg | SINCE FILE | TOTAL |
|----------------------|------------|---------|
| COST IN U.S. DOLLARS | ENTRY | SESSION |
| FULL ESTIMATED COST | 0.21 | 0.21 |

FILE 'REGISTRY' ENTERED AT 15:26:56 ON 30 APR 2003
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STRUCTURE FILE UPDATES: 29 APR 2003 HIGHEST RN 507441-92-1
DICTIONARY FILE UPDATES: 29 APR 2003 HIGHEST RN 507441-92-1

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STN Note 27, Searching Properties in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> s n n 1 3 pneylenebisglycine
4635400 N
4635400 N
13332498 1
11930798 3
0 PNEYLENEBISGLYCINE
L1 0 N N 1 3 PNEYLENEBISGLYCINE
(N(W)N(W)1(W)3(W)PNEYLENEBISGLYCINE)

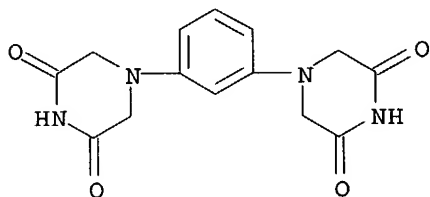
=> s n n 1 3 phenylenebisglycine
4635400 N
4635400 N
13332498 1
11930798 3
0 PHENYLENEBISGLYCINE
L2 0 N N 1 3 PHENYLENEBISGLYCINE
(N(W)N(W)1(W)3(W)PHENYLENEBISGLYCINE)

=> s phenylene and glycine
286122 PHENYLENE
414547 GLYCINE
L3 1623 PHENYLENE AND GLYCINE

=> s 13 and n
 4635400 N
 L4 1534 L3 AND N
 => s 14 and 1 and 3
 13332498 1
 11930798 3
 L5 870 L4 AND 1 AND 3

=> d 870

L5 ANSWER 870 OF 870 REGISTRY COPYRIGHT 2003 ACS
 RN 1160-84-5 REGISTRY
 CN 2,6-Piperazinedione, 4,4'-(1,3-phenylene)bis- (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN 2,6-Piperazinedione, 4,4'-m-phenylenedi- (7CI, 8CI)
 OTHER NAMES:
 CN Acetic acid, (m-phenylenedinitrilo)tetra-, N,N:N',N'-diimide
 CN Glycine, N,N'-(1,3-phenylene)bis[N-(carboxymethyl)-, N,N:N',N'-diimide
 FS 3D CONCORD
 MF C14 H14 N4 O4
 LC STN Files: CA, CAOLD, CAPLUS



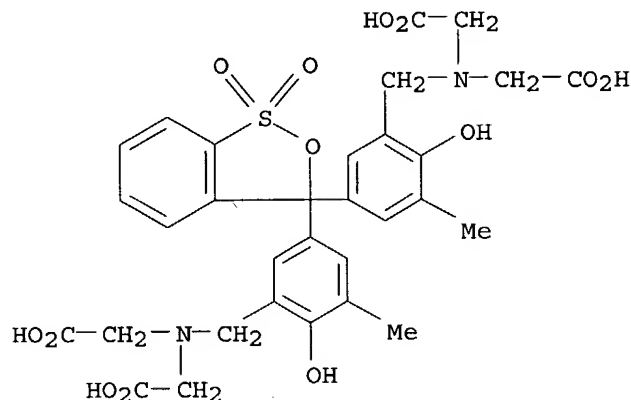
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d 869

L5 ANSWER 869 OF 870 REGISTRY COPYRIGHT 2003 ACS
 RN 1611-35-4 REGISTRY
 CN Glycine, N,N'-[(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis[(6-hydroxy-5-methyl-3,1-phenylene)methylene]]bis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN 3H-2,1-Benzoxathiole, glycine deriv.
 CN Acetic acid, [(alpha.-hydroxy-o-sulfobenzylidene)bis[(6-hydroxy-5-methyl-m-phenylene)methylenenitrilo]]tetra-, .gamma.-sultone (7CI)
 CN Acetic acid, [3H-2,1-benzoxathiol-3-ylidenebis[(6-hydroxy-5-methyl-m-phenylene)methylenenitrilo]]tetra-, S,S-dioxide (8CI)
 CN Glycine, N,N'-[3H-2,1-benzoxathiol-3-ylidenebis[(6-hydroxy-5-methyl-3,1-phenylene)methylene]]bis[N-(carboxymethyl)-, S,S-dioxide
 CN Phenolsulfonephthalein, 3',3''-bis[[bis(carboxymethyl)amino]methyl]-5',5''-dimethyl- (6CI)
 OTHER NAMES:
 CN Cresol Phthalexon S
 CN m-Cresolphthalexon S
 CN NSC 324982
 CN o-Cresolphthalexon S

CN Xylenol Orange
 FS 3D CONCORD
 DR 6905-79-9, 59764-31-7
 MF C31 H32 N2 O13 S
 CI COM
 LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
 BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, CSCHM,
 EMBASE, IFICDB, IFIPAT, IFIUDB, MEDLINE, NIOSHTIC, PROMT, TOXCENTER,
 USPATFULL
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1023 REFERENCES IN FILE CA (1957 TO DATE)
 214 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 1023 REFERENCES IN FILE CAPLUS (1957 TO DATE)
 5 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d his

(FILE 'HOME' ENTERED AT 15:26:51 ON 30 APR 2003)

FILE 'REGISTRY' ENTERED AT 15:26:56 ON 30 APR 2003

L1 0 S N N 1 3 PNEYLENEBISGLYCINE
 L2 0 S N N 1 3 PHENYLENEBISGLYCINE
 L3 1623 S PHENYLENE AND GLYCINE
 L4 1534 S L3 AND N
 L5 870 S L4 AND 1 AND 3

=> s acetaminophenylimino and acetic acid

0 ACETAMINDOPHENYLIMINO
 645377 ACETIC
 5878231 ACID
 642742 ACETIC ACID
 (ACETIC(W)ACID)

L6 0 ACETAMINDOPHENYLIMINO AND ACETIC ACID

=> s acetaminophenylimino and acetic acid

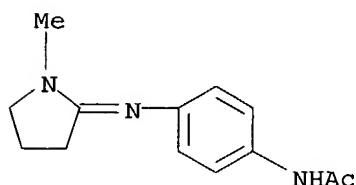
1 ACETAMINOPHENYLIMINO
 645377 ACETIC
 5878231 ACID
 642742 ACETIC ACID
 (ACETIC(W)ACID)

L7 0 ACETAMINOPHENYLIMINO AND ACETIC ACID

=> s acetaminophenylimino
L8 1 ACETAMINOPHENYLIMINO

=> d

L8 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS
RN 36285-43-5 REGISTRY
CN Acetamide, N-[4-[(1-methyl-2-pyrrolidinylidene)amino]phenyl]- (9CI) (CA
INDEX NAME)
OTHER NAMES:
CN 2-(4-Acetaminophenylimino)-1-methylpyrrolidine
MF C13 H17 N3 O
CI COM
LC STN Files: BEILSTEIN*, CA, CAPLUS, IFICDB, IFIPAT, IFIUDB
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

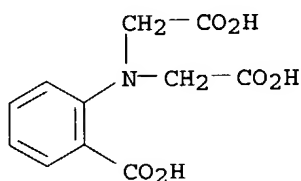
=> s bis and caroxymethyl and amino and benzoic acid
2659207 BIS
0 CAROXYMETHYL
4133775 AMINO
565969 BENZOIC
5878231 ACID
564873 BENZOIC ACID
(BENZOIC(W)ACID)
L9 0 BIS AND CAROXYMETHYL AND AMINO AND BENZOIC ACID

=> s bis and carboxymethyl and amino and benzoic acid
2659207 BIS
0 CARBOXYMETHYL
4133775 AMINO
565969 BENZOIC
5878231 ACID
564873 BENZOIC ACID
(BENZOIC(W)ACID)
L10 0 BIS AND CARBOXYMETHYL AND AMINO AND BENZOIC ACID

=> s bis and carboxymethyl and amino and benzoic acid
2659207 BIS
53063 CARBOXYMETHYL
4133775 AMINO
565969 BENZOIC
5878231 ACID
564873 BENZOIC ACID
(BENZOIC(W)ACID)
L11 322 BIS AND CARBOXYMETHYL AND AMINO AND BENZOIC ACID

=> d 322

L11 ANSWER 322 OF 322 REGISTRY COPYRIGHT 2003 ACS
 RN 1147-65-5 REGISTRY
 CN Benzoic acid, 2-[bis(carboxymethyl)amino]- (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Acetic acid, [(o-carboxyphenyl)imino]di- (6CI, 7CI)
 CN Anthranilic acid, N,N-bis(carboxymethyl)- (8CI)
 OTHER NAMES:
 CN ANDA
 CN Anthranil-N,N-diacetic acid
 CN Anthranildiacetic acid
 CN Anthranilic-N,N-diacetic acid
 CN N,N-Bis(carboxymethyl)anthranilic acid
 CN N-(o-Carboxyphenyl)iminodiacetic acid
 CN N-Carboxymethyl-N-(2-carboxyphenyl)glycine
 MF C11 H11 N O6
 CI COM
 LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CHEMCATS, CSCHM, GMELIN*, TOXCENTER, USPAT2, USPATFULL
 (*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

98 REFERENCES IN FILE CA (1957 TO DATE)
 17 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 98 REFERENCES IN FILE CAPLUS (1957 TO DATE)
 20 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

| | | |
|----------------------|------------------|---------------|
| => log y | | |
| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
| FULL ESTIMATED COST | 168.46 | 168.67 |

STN INTERNATIONAL LOGOFF AT 15:35:21 ON 30 APR 2003

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LOGINID:sssptaul56cxh

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

| | |
|---------------|--|
| NEWS 1 | Web Page URLs for STN Seminar Schedule - N. America |
| NEWS 2 Apr 08 | "Ask CAS" for self-help around the clock |
| NEWS 3 Jun 03 | New e-mail delivery for search results now available |

NEWS 4 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN
 NEWS 5 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE)
 now available on STN
 NEWS 6 Aug 26 Sequence searching in REGISTRY enhanced
 NEWS 7 Sep 03 JAPIO has been reloaded and enhanced
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 NEWS 34 Apr 21 Indexing from 1947 to 1956 being added to records in CA/CAPLUS
 NEWS 35 Apr 21 New current-awareness alert (SDI) frequency in
 WPIDS/WPINDEX/WPIX
 NEWS 36 Apr 28 RDISCLOSURE now available on STN

 NEWS EXPRESS April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT
 MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
 AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003
 NEWS HOURS STN Operating Hours Plus Help Desk Availability
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 NEWS WWW CAS World Wide Web Site (general information)

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 16:12:39 ON 30 APR 2003

=> file registry
 COST IN U.S. DOLLARS

SINCE FILE TOTAL

FULL ESTIMATED COST

| ENTRY | SESSION |
|-------|---------|
| 0.21 | 0.21 |

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STRUCTURE FILE UPDATES: 29 APR 2003 HIGHEST RN 507441-92-1
DICTIONARY FILE UPDATES: 29 APR 2003 HIGHEST RN 507441-92-1

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

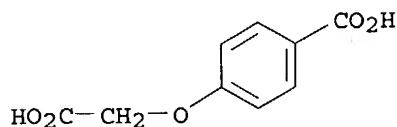
Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP
PROPERTIES for more information. See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> s carboxyphenoxyacetic acid
12 CARBOXYPHENOXYACETIC
5878231 ACID
L1 12 CARBOXYPHENOXYACETIC ACID
(CARBOXYPHENOXYACETIC (W) ACID)

=> d 12

L1 ANSWER 12 OF 12 REGISTRY COPYRIGHT 2003 ACS
RN 19360-67-9 REGISTRY
CN Benzoic acid, 4-(carboxymethoxy)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN p-Anisic acid, .alpha.-carboxy- (6CI, 7CI, 8CI)
OTHER NAMES:
CN 4-Carboxy-1-(carboxymethoxy)benzene
CN 4-Carboxyphenoxyacetic acid
FS 3D CONCORD
MF C9 H8 O5
CI COM
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST,
CSCHEM, HODOC*, IFICDB, IFIPAT, IFIUDB, MSDS-OHS, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)



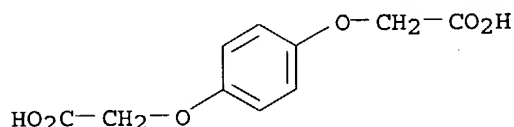
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

36 REFERENCES IN FILE CA (1957 TO DATE)
37 REFERENCES IN FILE CAPLUS (1957 TO DATE)
9 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> s hydroquinone o o diacetic acid
 4380 HYDROQUINONE
 2041178 O
 2041178 O
 7477 DIACETIC
 5878231 ACID
 L2 1 HYDROQUINONE O O DIACETIC ACID
 (HYDROQUINONE (W) O (W) O (W) DIACETIC (W) ACID)

=> d

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS
 RN 2245-53-6 REGISTRY
 CN Acetic acid, 2,2'-[1,4-phenylenebis(oxy)]bis- (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Acetic acid, (p-phenylenedioxy)di- (6CI, 7CI, 8CI)
 OTHER NAMES:
 CN 1,4-Bis(carboxymethoxy)benzene
 CN 1,4-Dicarboxymethoxybenzene
 CN 1,4-Phenylenedioxydiacetic acid
 CN **Hydroquinone-0,0-diacetic acid**
 FS 3D CONCORD
 MF C10 H10 O6
 CI COM
 LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST,
 CSCHEM, IFICDB, IFIPAT, IFIUDB, TOXCENTER, USPATFULL
 (*File contains numerically searchable property data)
 Other Sources: EINECS**, NDSL**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

61 REFERENCES IN FILE CA (1957 TO DATE)
 5 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 62 REFERENCES IN FILE CAPLUS (1957 TO DATE)
 7 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> s caroxy 0 anisic acid
 0 CAROXY
 496260 0
 2744 ANISIC
 5878231 ACID
 L3 0 CAROXY 0 ANISIC ACID
 (CAROXY (W) 0 (W) ANISIC (W) ACID)

=> s carboxy 0 anisic acid
 268427 CARBOXY
 496260 0
 2744 ANISIC
 5878231 ACID
 L4 0 CARBOXY 0 ANISIC ACID
 (CARBOXY (W) 0 (W) ANISIC (W) ACID)

=> s carboxy and anisic acid

268427 CARBOXY

2744 ANISIC

5878231 ACID

2719 ANISIC ACID

(ANISIC(W)ACID)

L5 190 CARBOXY AND ANISIC ACID

=> d 190

L5 ANSWER 190 OF 190 REGISTRY COPYRIGHT 2003 ACS

RN 603-59-8 REGISTRY

CN Benzoic acid, 2-(carboxymethoxy)-, compd. with 1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one (1:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 3H-Pyrazol-3-one, 1,2-dihydro-1,5-dimethyl-2-phenyl-,
mono[2-(carboxymethoxy)benzoate] (9CI)

CN Antipyrine, compd. with .alpha.-carboxy-o-anisic acid (1:1)

CN o-Anisic acid, .alpha.-carboxy-, compd. with antipyrine (1:1)
(8CI)

OTHER NAMES:

CN Antipyrine salicylacetate

DR 8048-45-1

MF C11 H12 N2 O . C9 H8 O5

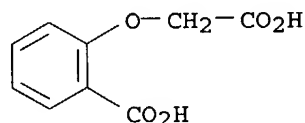
LC STN Files: MRCK*

(*File contains numerically searchable property data)

CM 1

CRN 635-53-0

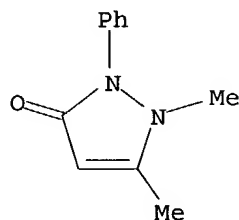
CMF C9 H8 O5



CM 2

CRN 60-80-0

CMF C11 H12 N2 O



=> s anisic acid

2744 ANISIC

5878231 ACID

L6 2719 ANISIC ACID

(ANISIC(W)ACID)

=> s anisic acid/cn
L7 1 ANISIC ACID/CN

=> d

L7 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS
RN 1335-08-6 REGISTRY
CN Benzoic acid, methoxy- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Anisic acid (8CI)
OTHER NAMES:
CN Methoxybenzoic acid
MF C8 H8 O3
CI IDS, COM
LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA,
CAPLUS, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHM, EMBASE, IFICDB, IFIPAT,
IFIUDB, NAPRALERT, PROMT, TOXCENTER, USPATFULL
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)



D1-O-Me

D1-CO₂H

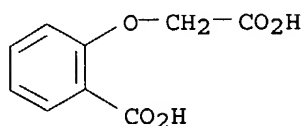
151 REFERENCES IN FILE CA (1957 TO DATE)
6 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
151 REFERENCES IN FILE CAPLUS (1957 TO DATE)

=> s carboxy and anisic acid
268427 CARBOXY
2744 ANISIC
5878231 ACID
2719 ANISIC ACID
(ANISIC(W)ACID)
L8 190 CARBOXY AND ANISIC ACID

=> d 189

L8 ANSWER 189 OF 190 REGISTRY COPYRIGHT 2003 ACS
RN 635-53-0 REGISTRY
CN Benzoic acid, 2-(carboxymethoxy)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN o-Anisic acid, .alpha.-carboxy- (6CI, 7CI, 8CI)
OTHER NAMES:
CN (2-Carboxyphenoxy)acetic acid
CN (o-Carboxyphenoxy)acetic acid
CN Acetic acid, (2-carboxyphenoxy)-
CN o-(Carboxymethoxy)benzoic acid
FS 3D CONCORD
MF C9 H8 O5
CI COM
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST,
CSCHM, HODOC*, IFICDB, IFIPAT, IFIUDB, RTECS*, SPECINFO, USPATFULL
(*File contains numerically searchable property data)

Other Sources: NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

47 REFERENCES IN FILE CA (1957 TO DATE)
47 REFERENCES IN FILE CAPLUS (1957 TO DATE)
13 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> s resorcinol and diacetic acid

3633 RESORCINOL
7477 DIACETIC
5878231 ACID
7409 DIACETIC ACID
(DIACETIC(W)ACID)

L9 4 RESORCINOL AND DIACETIC ACID

=> d 4

L9 ANSWER 4 OF 4 REGISTRY COPYRIGHT 2003 ACS

RN 4959-46-0 REGISTRY

CN 2,6-Methano-3-benzazocine-6,11(1H)-diacetic acid,
2,3,4,5-tetrahydro-8-methoxy-3-methyl-7-phenoxy-, diethyl ester, compd.
with 2,4,6-trinitro-1,3-benzenediol (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2,6-Methano-3-benzazocine-6,11(1H)-diacetic acid,
2,3,4,5-tetrahydro-8-methoxy-3-methyl-7-phenoxy-, diethyl ester, compd.
with 2,4,6-trinitroresorcinol, (-)- (8CI)

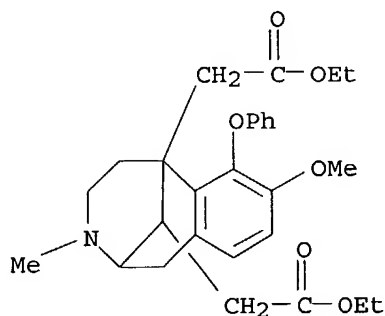
MF C28 H35 N O6 . x C6 H3 N3 O8

LC STN Files: CAOLD

CM 1

CRN 47758-73-6

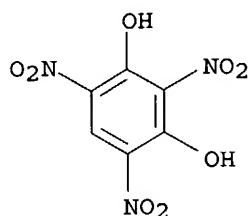
CMF C28 H35 N O6



CM 2

CRN 82-71-3

CMF C6 H3 N3 O8



1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d 1-3

L9 ANSWER 1 OF 4 REGISTRY COPYRIGHT 2003 ACS

RN 98507-54-1 REGISTRY

CN Glycine, N-(carboxymethyl)-, polymer with 1,3-benzenediol and formaldehyde (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,3-Benzenediol, polymer with N-(carboxymethyl)glycine and formaldehyde (9CI)

CN Formaldehyde, polymer with 1,3-benzenediol and N-(carboxymethyl)glycine (9CI)

OTHER NAMES:

CN **Formaldehyde-resorcinol-iminodiacetic acid copolymer**

MF (C6 H6 O2 . C4 H7 N O4 . C H2 O)x

CI PMS

PCT Phenolic resin, Polyamine, Polyester, Polyester formed

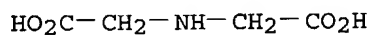
SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 142-73-4

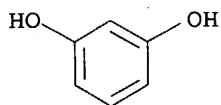
CMF C4 H7 N O4



CM 2

CRN 108-46-3

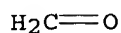
CMF C6 H6 O2



CM 3

CRN 50-00-0

CMF C H2 O



3 REFERENCES IN FILE CA (1957 TO DATE)
3 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L9 ANSWER 2 OF 4 REGISTRY COPYRIGHT 2003 ACS

RN 75571-98-1 REGISTRY

CN Glycine, N-(carboxymethyl)-, polymer with 1,3-benzenediol,
1,2-ethanediylbis[carbamodithioic acid] disodium salt and formaldehyde
(9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,3-Benzenediol, polymer with N-(carboxymethyl)glycine,
1,2-ethanediylbis[carbamodithioic acid] disodium salt and formaldehyde
(9CI)

CN Carbamodithioic acid, 1,2-ethanediylbis-, disodium salt, polymer with
1,3-benzenediol, N-(carboxymethyl)glycine and formaldehyde (9CI)

CN Formaldehyde, polymer with 1,3-benzenediol, N-(carboxymethyl)glycine and
1,2-ethanediylbis[carbamodithioic acid] disodium salt (9CI)

OTHER NAMES:

CN N,N'-Ethylenebis(carbamodithioic acid) sodium salt-formaldehyde-
iminodiacetic acid-resorcinol copolymer

MF (C6 H6 O2 . C4 H8 N2 S4 . C4 H7 N O4 . C H2 O . 2 Na)x

CI PMS

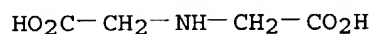
PCT Phenolic resin, Polyamine, Polyester, Polyester formed, Polyother

LC STN Files: CA, CAPLUS, TOXCENTER

CM 1

CRN 142-73-4

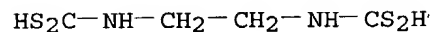
CMF C4 H7 N O4



CM 2

CRN 142-59-6 (111-54-6)

CMF C4 H8 N2 S4 . 2 Na

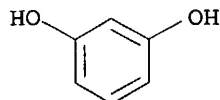


● 2 Na

CM 3

CRN 108-46-3

CMF C6 H6 O2



CM 4

CRN 50-00-0

CMF C H2 O

H₂C=O

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L9 ANSWER 3 OF 4 REGISTRY COPYRIGHT 2003 ACS

RN 50658-97-4 REGISTRY

CN Glycine, N-(carboxymethyl)-N-(2-hydroxyphenyl)-, polymer with
1,3-benzenediol and formaldehyde (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,3-Benzenediol, polymer with N-(carboxymethyl)-N-(2-hydroxyphenyl)glycine
and formaldehyde (9CI)

CN Formaldehyde, polymer with 1,3-benzenediol and N-(carboxymethyl)-N-(2-
hydroxyphenyl)glycine (9CI)

OTHER NAMES:

CN **Formaldehyde-o-hydroxyphenyliminodiacetic acid-resorcinol polymer**

MF (C10 H11 N O5 . C6 H6 O2 . C H2 O)x

CI PMS

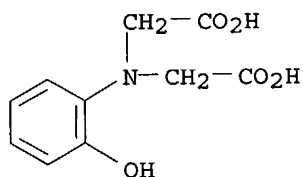
PCT Phenolic resin, Polyamine, Polyester, Polyester formed

LC STN Files: CA, CAPLUS

CM 1

CRN 6243-03-4

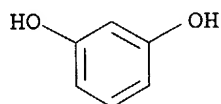
CMF C10 H11 N O5



CM 2

CRN 108-46-3

CMF C6 H6 O2



CM 3

CRN 50-00-0

CMF C H2 O

H₂C=O

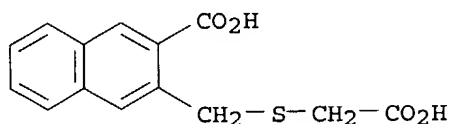
1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

=> s naphthalenecarboxylic acid
 28954 NAPHTHALENECARBOXYLIC
 5878231 ACID
 L10 28918 NAPHTHALENECARBOXYLIC ACID
 (NAPHTHALENECARBOXYLIC (W) ACID)

=> s carboxymethyl and thio and naphthalenecarboxylic acid
 53063 CARBOXYMETHYL
 1681644 THIO
 28954 NAPHTHALENECARBOXYLIC
 5878231 ACID
 28918 NAPHTHALENECARBOXYLIC ACID
 (NAPHTHALENECARBOXYLIC (W) ACID)
 L11 6 CARBOXYMETHYL AND THIO AND NAPHTHALENECARBOXYLIC ACID

=> d 6

L11 ANSWER 6 OF 6 REGISTRY COPYRIGHT 2003 ACS
 RN 35977-79-8 REGISTRY
 CN 2-Naphthalenecarboxylic acid, 3-[[[(carboxymethyl)thio]methyl]-
 (9CI) (CA INDEX NAME)
 FS 3D CONCORD
 MF C14 H12 O4 S
 LC STN Files: BEILSTEIN*, CA, CAPLUS
 (*File contains numerically searchable property data)

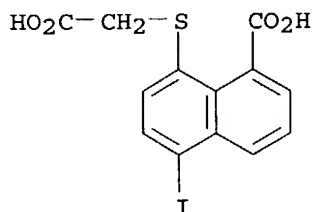


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

=> d 5

L11 ANSWER 5 OF 6 REGISTRY COPYRIGHT 2003 ACS
 RN 50716-49-9 REGISTRY
 CN 1-Naphthalenecarboxylic acid, 8-[(carboxymethyl)thio]-5-iodo-
 (9CI) (CA INDEX NAME)
 MF C13 H9 I O4 S
 LC STN Files: BEILSTEIN*, CA, CAPLUS
 (*File contains numerically searchable property data)

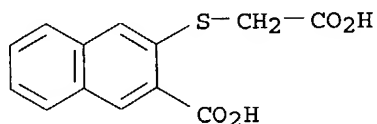


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

=> d 4

L11 ANSWER 4 OF 6 REGISTRY COPYRIGHT 2003 ACS
RN 64289-70-9 REGISTRY
CN 2-Naphthalenecarboxylic acid, 3-[(carboxymethyl)thio]- (9CI)
(CA INDEX NAME)
FS 3D CONCORD
MF C13 H10 O4 S
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT
(*File contains numerically searchable property data)

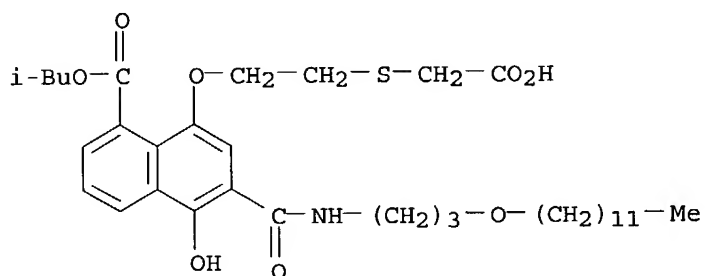


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1957 TO DATE)
2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

=> d 1-3

L11 ANSWER 1 OF 6 REGISTRY COPYRIGHT 2003 ACS
RN 190247-17-7 REGISTRY
CN 1-Naphthalenecarboxylic acid, 8-[2-[(carboxymethyl)thio]ethoxy]-6-
[[[3-(dodecyloxy)propyl]amino]carbonyl]-5-hydroxy-, 1-(2-methylpropyl)
ester (9CI) (CA INDEX NAME)
MF C35 H53 N O8 S
SR CA
LC STN Files: CA, CAPLUS



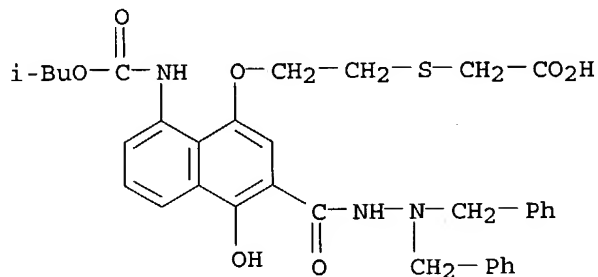
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L11 ANSWER 2 OF 6 REGISTRY COPYRIGHT 2003 ACS
RN 174705-08-9 REGISTRY
CN 2-Naphthalenecarboxylic acid, 4-[2-[(carboxymethyl)thio]ethoxy]-1-
hydroxy-5-[[[2-methylpropoxy]carbonyl]amino]-, 2-[2,2-

bis(phenylmethyl)hydrazide] (9CI) (CA INDEX NAME)

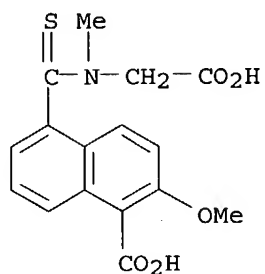
FS 3D CONCORD
MF C34 H37 N3 O7 S
SR CA
LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L11 ANSWER 3 OF 6 REGISTRY COPYRIGHT 2003 ACS
RN 129357-51-3 REGISTRY
CN 1-Naphthalenecarboxylic acid, 5-[[[(carboxymethyl)methylamino]thioxomethyl]-2-methoxy- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C16 H15 N O5 S
SR CA
LC STN Files: BEILSTEIN*, CA, CAPLUS
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

=> s carboxymethylthio adj benzoic acid

162 CARBOXYMETHYLTHIO

3 ADJ

565969 BENZOIC

5878231 ACID

L12 0 CARBOXYMETHYLTHIO ADJ BENZOIC ACID
(CARBOXYMETHYLTHIO (W) ADJ (W) BENZOIC (W) ACID)

=> s carboxymethylthio and benzo?

162 CARBOXYMETHYLTHIO

2690358 BENZO?

L13 18 CARBOXYMETHYLTHIO AND BENZO?

=> d 1-18

L13 ANSWER 1 OF 18 REGISTRY COPYRIGHT 2003 ACS

RN 121394-60-3 REGISTRY

CN Alanine, N-benzoyl-3-(carboxymethylthio)-, compd. with
2-benzyl-2-thiopseudourea (1:2), L- (6CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C12 H13 N O5 S . 2 C8 H10 N2 S

SR CAOLD

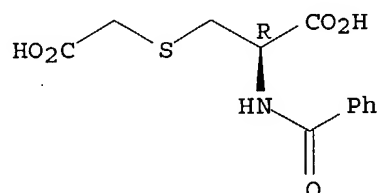
LC STN Files: CAOLD

CM 1

CRN 6332-29-2

CMF C12 H13 N O5 S

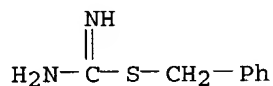
Absolute stereochemistry.



CM 2

CRN 621-85-2

CMF C8 H10 N2 S



1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L13 ANSWER 2 OF 18 REGISTRY COPYRIGHT 2003 ACS

RN 108128-50-3 REGISTRY

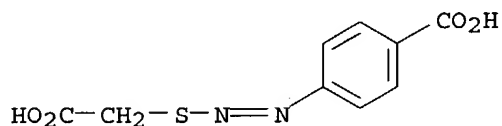
CN Benzoic acid, p-(carboxymethylthioazo)- (6CI) (CA INDEX NAME)

FS 3D CONCORD

MF C9 H8 N2 O4 S

SR CAOLD

LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS
(*File contains numerically searchable property data)

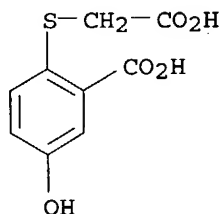


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)

1 REFERENCES IN FILE CAPLUS (1957 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

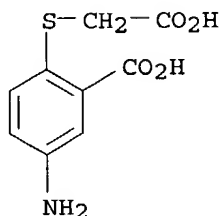
L13 ANSWER 3 OF 18 REGISTRY COPYRIGHT 2003 ACS
RN 108085-53-6 REGISTRY
CN Benzoic acid, 2-(carboxymethylthio)-5-hydroxy- (6CI) (CA INDEX
NAME)
FS 3D CONCORD
MF C9 H8 O5 S
SR CAOLD
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L13 ANSWER 4 OF 18 REGISTRY COPYRIGHT 2003 ACS
RN 103324-88-5 REGISTRY
CN Benzoic acid, 5-amino-2-(carboxymethylthio)- (6CI) (CA INDEX
NAME)
FS 3D CONCORD
MF C9 H9 N O4 S
SR CAOLD
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CHEMCATS
(*File contains numerically searchable property data)

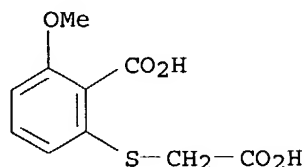


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1957 TO DATE)
2 REFERENCES IN FILE CAPLUS (1957 TO DATE)
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L13 ANSWER 5 OF 18 REGISTRY COPYRIGHT 2003 ACS
RN 103204-98-4 REGISTRY
CN Benzoic acid, 2-[(carboxymethyl)thio]-6-methoxy- (9CI) (CA
INDEX NAME)
OTHER CA INDEX NAMES:
CN o-Anisic acid, 6-(carboxymethylthio)- (6CI)

FS 3D CONCORD
 MF C10 H10 O5 S
 SR CAOLD
 LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT
 (*File contains numerically searchable property data)



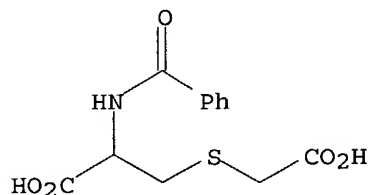
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1957 TO DATE)
 2 REFERENCES IN FILE CAPLUS (1957 TO DATE)
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L13 ANSWER 6 OF 18 REGISTRY COPYRIGHT 2003 ACS
 RN 102157-79-9 REGISTRY
 CN Alanine, N-benzoyl-3-(carboxymethylthio)-, compd. with
 2-benzyl-2-thiopseudourea (6CI) (CA INDEX NAME)
 MF C12 H13 N O5 S . C8 H10 N2 S
 SR CAOLD
 LC STN Files: CAOLD

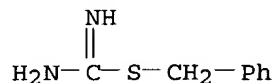
CM 1

CRN 121470-73-3
 CMF C12 H13 N O5 S



CM 2

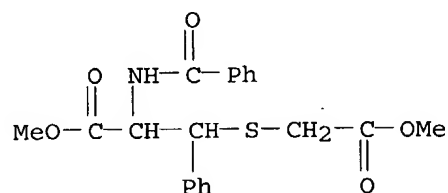
CRN 621-85-2
 CMF C8 H10 N2 S



1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L13 ANSWER 7 OF 18 REGISTRY COPYRIGHT 2003 ACS
 RN 102012-97-5 REGISTRY
 CN Alanine, N-benzoyl-3-(carboxymethylthio)-3-phenyl-, dimethyl ester
 (6CI) (CA INDEX NAME)
 FS 3D CONCORD
 MF C20 H21 N O5 S

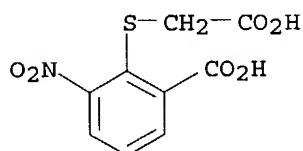
SR CAOLD
 LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS
 (*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

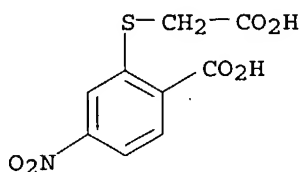
L13 ANSWER 8 OF 18 REGISTRY COPYRIGHT 2003 ACS
 RN 101714-45-8 REGISTRY
 CN Benzoic acid, 2-(carboxymethylthio)-3-nitro- (6CI) (CA INDEX NAME)
 FS 3D CONCORD
 MF C9 H7 N O6 S
 SR CAOLD
 LC STN Files: CA, CAOLD, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

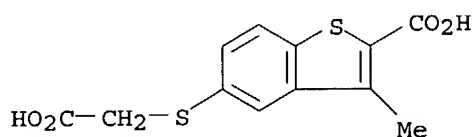
L13 ANSWER 9 OF 18 REGISTRY COPYRIGHT 2003 ACS
 RN 101714-12-9 REGISTRY
 CN Benzoic acid, 2-(carboxymethylthio)-4-nitro- (6CI) (CA INDEX NAME)
 FS 3D CONCORD
 MF C9 H7 N O6 S
 SR CAOLD
 LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS
 (*File contains numerically searchable property data)



****PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT****

2 REFERENCES IN FILE CA (1957 TO DATE)
 2 REFERENCES IN FILE CAPLUS (1957 TO DATE)
 2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

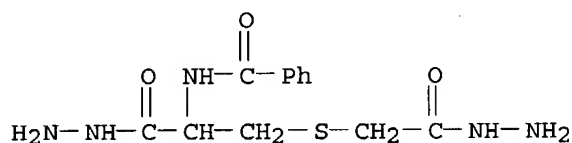
L13 ANSWER 10 OF 18 REGISTRY COPYRIGHT 2003 ACS
 RN 100953-29-5 REGISTRY
 CN **Benzo[b]thiophene-2-carboxylic acid, 5-(carboxymethylthio)-3-methyl-**
(6CI) (CA INDEX NAME)
 FS 3D CONCORD
 MF C12 H10 O4 S2
 SR CAOLD
 LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS
 (*File contains numerically searchable property data)



****PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT****

1 REFERENCES IN FILE CA (1957 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

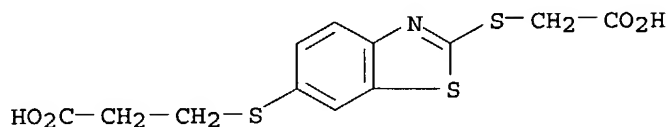
L13 ANSWER 11 OF 18 REGISTRY COPYRIGHT 2003 ACS
 RN 100319-13-9 REGISTRY
 CN **Alanine, N-benzoyl-3-(carboxymethylthio)-, dihydrazide (6CI)**
 (CA INDEX NAME)
 FS 3D CONCORD
 MF C12 H17 N5 O3 S
 SR CAOLD
 LC STN Files: BEILSTEIN*, CAOLD
 (*File contains numerically searchable property data)



****PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT****

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

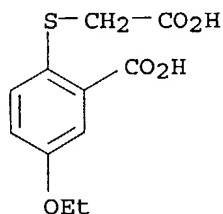
L13 ANSWER 12 OF 18 REGISTRY COPYRIGHT 2003 ACS
 RN 99988-76-8 REGISTRY
 CN **Propionic acid, 3-[2-(carboxymethylthio)-6-benzothiazolylthio]-**
(6CI) (CA INDEX NAME)
 FS 3D CONCORD
 MF C12 H11 N O4 S3
 SR CAOLD
 LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS
 (*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

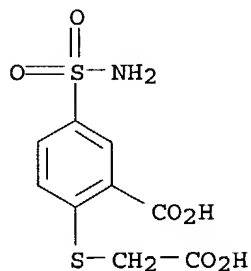
L13 ANSWER 13 OF 18 REGISTRY COPYRIGHT 2003 ACS
 RN 99866-05-4 REGISTRY
 CN Benzoic acid, 2-(carboxymethylthio)-5-ethoxy- (6CI) (CA INDEX NAME)
 FS 3D CONCORD
 MF C11 H12 O5 S
 SR CAOLD
 LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS
 (*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

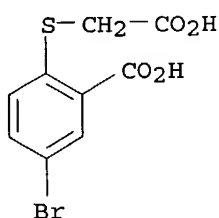
L13 ANSWER 14 OF 18 REGISTRY COPYRIGHT 2003 ACS
 RN 99358-37-9 REGISTRY
 CN Benzoic acid, 2-(carboxymethylthio)-5-sulfamoyl- (6CI) (CA INDEX NAME)
 FS 3D CONCORD
 MF C9 H9 N O6 S2
 SR CAOLD
 LC STN Files: CA, CAOLD, CAPLUS



****PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT****

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

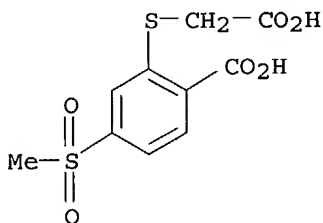
L13 ANSWER 15 OF 18 REGISTRY COPYRIGHT 2003 ACS
RN 99067-28-4 REGISTRY
CN Benzoic acid, 5-bromo-2-(carboxymethylthio)- (6CI) (CA INDEX NAME)
FS 3D CONCORD
MF C9 H7 Br O4 S
SR CAOLD
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS
(*File contains numerically searchable property data)



****PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT****

2 REFERENCES IN FILE CA (1957 TO DATE)
2 REFERENCES IN FILE CAPLUS (1957 TO DATE)
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L13 ANSWER 16 OF 18 REGISTRY COPYRIGHT 2003 ACS
RN 99059-45-7 REGISTRY
CN Benzoic acid, 2-(carboxymethylthio)-4-(methylsulfonyl)- (6CI) (CA INDEX NAME)
FS 3D CONCORD
MF C10 H10 O6 S2
SR CAOLD
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS
(*File contains numerically searchable property data)

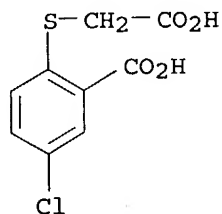


****PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT****

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1 REFERENCES IN FILE CAPLUS (1957 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L13 ANSWER 17 OF 18 REGISTRY COPYRIGHT 2003 ACS
RN 98588-73-9 REGISTRY

CN Benzoic acid, 2-(carboxymethylthio)-5-chloro- (6CI) (CA INDEX
NAME)
FS 3D CONCORD
MF C9 H7 Cl O4 S
SR CAOLD
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS
(*File contains numerically searchable property data)



****PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT****

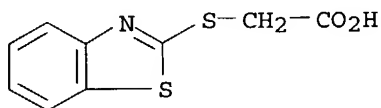
1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L13 ANSWER 18 OF 18 REGISTRY COPYRIGHT 2003 ACS
RN 6295-57-4 REGISTRY

CN Acetic acid, (2-benzothiazolylthio)- (6CI, 7CI, 8CI, 9CI) (CA
INDEX NAME)

OTHER NAMES:

CN (2-Benzothiazolylthio)acetic acid
CN 2-(2-Benzothiazolylthio)acetic acid
CN 2-Carboxymethylthiobenzothiazole
CN S-2-Benzothiazolylthioglycolic acid
CN Sanbit ABT
FS 3D CONCORD
MF C9 H7 N O2 S2
CI COM
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS,
CHEMINFORMRX, CHEMLIST, IPA, MEDLINE, SPECINFO, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**
(*Enter CHEMLIST File for up-to-date regulatory information)



****PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT****

86 REFERENCES IN FILE CA (1957 TO DATE)
3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
86 REFERENCES IN FILE CAPLUS (1957 TO DATE)
9 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> file ca
COST IN U.S. DOLLARS

FULL ESTIMATED COST

| SINCE FILE | TOTAL |
|------------|---------|
| ENTRY | SESSION |
| 226.82 | 227.03 |

FILE 'CA' ENTERED AT 16:23:05 ON 30 APR 2003
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FILE COVERS 1907 - 24 Apr 2003 VOL 138 ISS 18
FILE LAST UPDATED: 24 Apr 2003 (20030424/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 101714-12-9

REGISTRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

L15 2 L14

=> d 1-2

L15 ANSWER 1 OF 2 CA COPYRIGHT 2003 ACS
AN 54:114201 CA
OREF 54:21763h-i,21764h-i
TI Thioindigoid dyes. III. Dinitro-substituted thioindigo derivatives
AU Dokunikhin, N. S.; Gerasimenko, Yu. E.
CS K. E. Voroshilov Research Inst. Org. Intermediates and Dyes, Moscow
SO Zhur. Obshchei Khim. (1960), 30, 635-8
DT Journal
LA Unavailable

L15 ANSWER 2 OF 2 CA COPYRIGHT 2003 ACS
AN 52:11079 CA
OREF 52:1991d-i,1992a
TI Some bz-nitrothioindoxyls
AU Martani, Alfio
CS Univ. Perugia, Italy
SO Ann. chim. (Rome) (1957), 47, 885-91
DT Journal
LA Unavailable

=> s photo? and (ir or infrared or infra red)
1143616 PHOTO?
492857 IR
221359 INFRARED
3776 INFRA

326624 RED

3341 INFRA RED

(INFRA(W) RED)

L16 62628 PHOTO? AND (IR OR INFRARED OR INFRA RED)

=> s l16 and carboxymethyl

28062 CARBOXYMETHYL

L17 34 L16 AND CARBOXYMETHYL

=> d ti

L17 ANSWER 1 OF 34 CA COPYRIGHT 2003 ACS

TI Diagnostic imaging compositions, their methods of synthesis, and use

=> d ti 1-34

L17 ANSWER 1 OF 34 CA COPYRIGHT 2003 ACS

TI Diagnostic imaging compositions, their methods of synthesis, and use

L17 ANSWER 2 OF 34 CA COPYRIGHT 2003 ACS

TI Efficient visible light sensitization of water-soluble near-
infrared luminescent lanthanide complexes

L17 ANSWER 3 OF 34 CA COPYRIGHT 2003 ACS

TI Processing of tetrazolium-containing silver halide **photographic**
material with mercapto compound-containing developer to improve
characteristic and dot quality

L17 ANSWER 4 OF 34 CA COPYRIGHT 2003 ACS

TI **Photocuring** method by shielding oxygen on the surface of
photocurable materials

L17 ANSWER 5 OF 34 CA COPYRIGHT 2003 ACS

TI Electron Spin Resonance Studies of **Photocatalytic** Interface
Reactions of Suspended M/TiO₂ (M = Pt, Pd, Ir, Rh, Os, or Ru)
with Alcohol and Acetic Acid in Aqueous Media

L17 ANSWER 6 OF 34 CA COPYRIGHT 2003 ACS

TI **Photocrosslinking** of water-soluble polymers bearing a pendant
cyclohexene moiety

L17 ANSWER 7 OF 34 CA COPYRIGHT 2003 ACS

TI Development of silver halide **photographic** material by
coating-application of developing solution

L17 ANSWER 8 OF 34 CA COPYRIGHT 2003 ACS

TI **Photoacoustic** FT-IR study on keratin chemically bound
on the surface of silica gel particles

L17 ANSWER 9 OF 34 CA COPYRIGHT 2003 ACS

TI Substantivity through cationic substitution

L17 ANSWER 10 OF 34 CA COPYRIGHT 2003 ACS

TI Method of silver image formation

L17 ANSWER 11 OF 34 CA COPYRIGHT 2003 ACS

TI **Photoelectrochemical** studies of electrodes coated with
merocyanine dye

L17 ANSWER 12 OF 34 CA COPYRIGHT 2003 ACS

TI Bonding in silver complexes of carboxylic acid substituted thionamides
examined by **infrared**, laser-Raman, and x-ray
photoelectron spectroscopy

L17 ANSWER 13 OF 34 CA COPYRIGHT 2003 ACS
 TI Study of the effect of uv radiation on carboxyl-containing cellulose materials

L17 ANSWER 14 OF 34 CA COPYRIGHT 2003 ACS
 TI Rapid hardening cement. III. Effects of keto carboxylic acids on the hydration of calcium sulfate hemihydrate

L17 ANSWER 15 OF 34 CA COPYRIGHT 2003 ACS
 TI Addition compounds of bis-salicylaldehyde ethylenediiminecopper. X. Synthesis of 3-(carboxyalkyl)salicylaldehyde derivatives and their copper chelates

L17 ANSWER 16 OF 34 CA COPYRIGHT 2003 ACS
 TI Decomposable thermoplastic compositions

L17 ANSWER 17 OF 34 CA COPYRIGHT 2003 ACS
 TI The preparation of biochemically interesting thio ethers of estrogens. II. 2-Methoxy-4-(carboxymethylthio)estrone 3-methyl ethers

L17 ANSWER 18 OF 34 CA COPYRIGHT 2003 ACS
 TI Preparation and coordination studies of the complex acid, dihydrogen diethylenetriaminepentaacetateferrate(III) dihydrate, and several of its metal(I) salts

L17 ANSWER 19 OF 34 CA COPYRIGHT 2003 ACS
 TI Structure of metal complexes of anthranilyldiacetic acid

L17 ANSWER 20 OF 34 CA COPYRIGHT 2003 ACS
 TI Heat-sensitive copying material

L17 ANSWER 21 OF 34 CA COPYRIGHT 2003 ACS
 TI Synthetic studies leading to dl-telekin and dl-alantolactone

L17 ANSWER 22 OF 34 CA COPYRIGHT 2003 ACS
 TI **Photolysis** of silver alginate and silver **carboxymethyl** cellulose

L17 ANSWER 23 OF 34 CA COPYRIGHT 2003 ACS
 TI Halogen containing heterocyclic compounds. II. Halogenation of furfuryl derivatives-maleic anhydride adduct

L17 ANSWER 24 OF 34 CA COPYRIGHT 2003 ACS
 TI Light-sensitive materials with incorporated developing agents

L17 ANSWER 25 OF 34 CA COPYRIGHT 2003 ACS
 TI Synthesis of cyclobutane derivatives from unsaturated fatty acid esters. **Photochemical** reactions of muconic acid dimethyl ester and sorbic acid methyl ester

L17 ANSWER 26 OF 34 CA COPYRIGHT 2003 ACS
 TI Grafting of poly(vinyl chloride) (PVC) on cellulose and its derivatives

L17 ANSWER 27 OF 34 CA COPYRIGHT 2003 ACS
 TI **Photochemical** reactions. XVII. **Photochemical** transformations of O-acetyl-1-dehydrotestosterone. 2

L17 ANSWER 28 OF 34 CA COPYRIGHT 2003 ACS
 TI Thermographic formation of images in plastic films

L17 ANSWER 29 OF 34 CA COPYRIGHT 2003 ACS
 TI **Photographic** filter layer

L17 ANSWER 30 OF 34 CA COPYRIGHT 2003 ACS
 TI Couplers for **photographic** emulsions

L17 ANSWER 31 OF 34 CA COPYRIGHT 2003 ACS
TI Cupric complexes as **infrared**-absorbing filters

L17 ANSWER 32 OF 34 CA COPYRIGHT 2003 ACS
TI Stereospecific synthesis of (+)-O-methylpsychotrine and (-)-emetine

L17 ANSWER 33 OF 34 CA COPYRIGHT 2003 ACS
TI Stereochemistry of tropane alkaloids. IX. Selective quaternization of 3.alpha.- and 3.beta.-tropanol and of their derivatives

L17 ANSWER 34 OF 34 CA COPYRIGHT 2003 ACS
TI Forming films

=> d 4,6,13 all

L17 ANSWER 4 OF 34 CA COPYRIGHT 2003 ACS

AN 128:154902 CA

TI **Photocuring** method by shielding oxygen on the surface of **photocurable** materials

IN Kamata, Hirotooshi; Watanabe, Takeo; Oga, Kazuhiko; Sugita, Shuichi

PA Showa Denko K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08F002-48

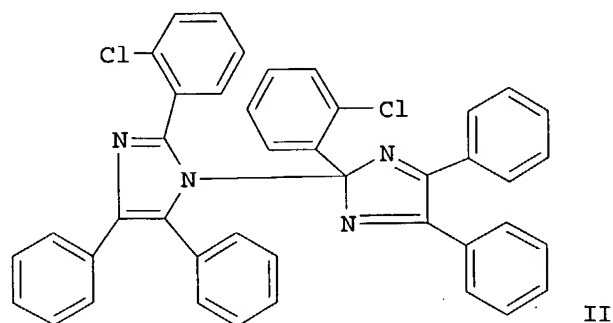
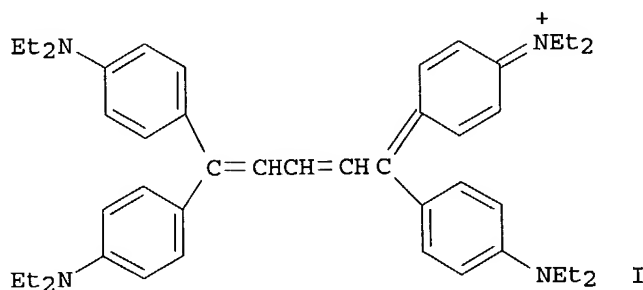
ICS B29C067-00; C08F002-44; C09D004-00; C09D201-00

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 42

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 10007707 | A2 | 19980113 | JP 1996-164728 | 19960625 |
| PRAI | JP 1996-164728 | | 19960625 | | |
| GI | | | | | |



AB A method includes applying aq. solns. of film-formable water-sol. org. polymers on the surface of **photocurable** materials to shield O in the air and irradiating with visible ray and near-IR ray. The films made from the water-sol. org. polymers can be easily removed after **photocuring**. Preferably, the **photocurable** materials contain (A) ethylenically unsatd. compds., (B) near-IR radical polymn. initiators, (C) visible ray radical polymn. initiators, and (D) .gtoreq.1 filler chosen from pigments, dyes, extender pigments, and fiber reinforcers. Thus, a compn. comprising Ripoxy SP 1509 75, styrene 25, talc 100, I butyltriphenylborate 0.10, tetrabutylammonium butyltriphenylborate 0.50, II 0.50, and 2-mercaptobenzothiazole 0.50 part, was poured into a mold, coated with aq. 5% Poval 217 (III) on the surface of the compn., irradiated, and freed of the III film to give a cured product having a tack-free surface.

ST oxygen shield coating radical **photocuring**; vinyl ester styrene **photocuring**; polymn inhibitor oxygen shield

IT Polyoxyalkylenes, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (PEO 15, coatings; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT Epoxy resins, preparation
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
 (acrylates, polymers with styrene, **photocured**; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT Polyesters, preparation
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
 (acrylic, **photocured**; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT Gelatins, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT Polymerization inhibitors
 (oxygen; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT Polymerization catalysts
 Polymerization catalysts
 (**photochem.**, radical; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT Coating materials
 Shields
 (**photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT Acrylic polymers, preparation
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
 (polyester-, **photocured**; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT Polyesters, preparation
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
 (unsatd., **photocured**; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

- IT Polymers, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (water-sol.; **photocuring** method by coating with water-sol.
 polymers for shielding oxygen on **photocurable** compn.
 surfaces)
- IT 25322-68-3, PEO 15
 RL: TEM (Technical or engineered material use); USES (Uses)
 (PEO 15, coatings; **photocuring** method by coating with
 water-sol. polymers for shielding oxygen on **photocurable**
 compn. surfaces)
- IT 9002-89-5, Poval 217
 RL: TEM (Technical or engineered material use); USES (Uses)
 (Poval 217, coatings; **photocuring** method by coating with
 water-sol. polymers for shielding oxygen on **photocurable**
 compn. surfaces)
- IT 9003-39-8, Polyvinylpyrrolidone 9004-32-4, **Carboxymethyl**
 cellulose sodium salt 9005-25-8, Starch, uses 9057-02-7, Pullulan
 28408-65-3, Poly(N-Vinylacetamide)
 RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings; **photocuring** method by coating with water-sol.
 polymers for shielding oxygen on **photocurable** compn.
 surfaces)
- IT 14807-96-6, Talc, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (extender pigment; **photocuring** method by coating with
 water-sol. polymers for shielding oxygen on **photocurable**
 compn. surfaces)
- IT 54847-75-5P, Rigolac 2141 115856-61-6P 115980-50-2P 137803-90-8P,
 U-PICA 6424 202530-48-1P 202530-49-2P 202530-50-5P 202535-00-0P
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP
 (Preparation); USES (Uses)
 (**photocured**; **photocuring** method by coating with
 water-sol. polymers for shielding oxygen on **photocurable**
 compn. surfaces)
- IT 199128-41-1P, Rigolac G 200GMA
 RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
 (**photocured**; **photocuring** method by coating with
 water-sol. polymers for shielding oxygen on **photocurable**
 compn. surfaces)
- IT 7782-44-7, Oxygen, uses
 RL: CAT (Catalyst use); USES (Uses)
 (**photocuring** method by coating with water-sol. polymers for
 shielding oxygen on **photocurable** compn. surfaces)
- IT 99-97-8, N,N-Dimethyl-p-toluidine 102-71-6, Triethanolamine, uses
 103-01-5, n-Phenylglycine 134-81-6 149-30-4, 2-Mercaptobenzothiazole
 583-39-1 21245-01-2, Isoamyl p-dimethylaminobenzoate 79044-56-7
 96233-24-8 120307-06-4, Tetrabutylammonium butyltriphenylborate
 141714-54-7 159116-57-1 174285-64-4, Irgacure 1700 174914-36-4
 184591-58-0 189947-80-6 189947-84-0 189947-86-2 189947-87-3
 192642-08-3 202530-51-6 202530-52-7 202530-53-8 202530-54-9
 RL: CAT (Catalyst use); USES (Uses)
 (radical **photopolymn.** catalyst; **photocuring** method
 by coating with water-sol. polymers for shielding oxygen on
photocurable compn. surfaces)

L17 ANSWER 6 OF 34 CA COPYRIGHT 2003 ACS

AN 119:9287 CA

TI **Photocrosslinking** of water-soluble polymers bearing a pendant
 cyclohexene moiety

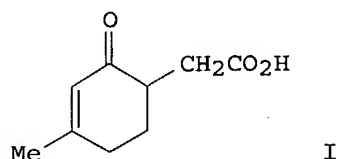
AU Tsunooka, Masahiro; Amekawa, Yoshihide; Sashio, Minoru

CS Coll. Eng., Univ. Osaka Prefect., Sakai, 591, Japan

SO Journal of Photopolymer Science and Technology (1992), 5(2), 267-70
 CODEN: JSTEEW; ISSN: 0914-9244

DT Journal

LA English



- AB Poly(vinyl alc.) (PVA) bearing a cyclohexenone moiety as a side chain was prep'd. by esterification of partially hydrolyzed poly(vinyl acetate) with carboxylic acid I in the presence of dicyclohexyl carbodiimide, followed by hydrolysis of acetoxy group under basic conditions. The **photoreaction** of the resulting PVA by irradiation at 254 nm was traced by taking UV spectra around 237 nm and IR absorptions at 1656 and 1714 cm⁻¹ by carbonyl. **Photodimerization** of .alpha.,.beta.-unsat'd. ketone proceeded in the second order to the ketone, and the activation energy was 15.5 kJ/mol.
- ST cyclohexene pendant polyvinyl alc **photocrosslinking**;
crosslinking cyclohexene pendant polyvinyl alc
- IT Crosslinking
(**photochem.**, of cyclohexenone-pendant poly(vinyl alc.), by **photodimerization**)
- IT Dimerization
(**photochem.**, of cyclohexenone-pendant poly(vinyl alc.), crosslinking by)
- IT 9003-20-7D, Poly(vinyl acetate), hydrolyzed, reaction products with 2-**carboxymethyl**-1-methylcyclohexen-3-one 20778-34-1D, reaction products with hydrolyzed poly(vinyl acetate)
RL: RCT (Reactant); RACT (Reactant or reagent)
(crosslinking of, by **photodimerization**)
- L17 ANSWER 13 OF 34 CA COPYRIGHT 2003 ACS
- AN 85:126056 CA
- TI Study of the effect of uv radiation on carboxyl-containing cellulose materials
- AU Savastenko, G. N.; Ermolenko, I. N.; Isichenko, A. D.
- CS Inst. Obshch. Neorg. Khim., Minsk, USSR
- SO Vestsi Akademii Navuk BSSR, Seryya Khimichnykh Navuk (1976), (4), 40-4
CODEN: VBSKAK; ISSN: 0002-3590
- DT Journal
- LA Russian
- CC 43-3 (Cellulose, Lignin, Paper, and Other Wood Products)
- AB The uv irradiation of monocarboxyl cellulose (I) [9032-53-5] and CM-cellulose [9004-32-4] in vacuo with 2.1 .times. 10¹⁷ quanta .times. cm⁻² .times. sec⁻¹ at subzero temp. (liq. N) and at ambient temp. showed that the intensity of ir absorption band at 1730 cm⁻¹, characteristic of CO group vibrations, increased more rapidly during irradiation at subzero temps. than at ambient temp. The d.p. of I irradiated at subzero temp. for 30 min. remained essentially unchanged, but decreased rapidly following irradiation at ambient temp. The **photolysis** of I at ambient temp. gave H, CO, and CO₂ in molar ratios of 78.5:13.3:8.5. The relative content of CO increased when the **photolysis** of I was carried out at subzero temps.
- ST carboxyl cellulose UV irradiation; **carboxymethyl** cellulose irradiated
IR; **photolysis** carboxyl cellulose
- IT **Photolysis**
(of carboxy cellulose, with uv light)
- IT 9004-32-4 9032-53-5
RL: PROC (Process)
(irradiation of, with uv light)

=> file reg
COST IN U.S. DOLLARS

| SINCE FILE | TOTAL |
|------------|---------|
| ENTRY | SESSION |
| 33.32 | 261.15 |

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

| SINCE FILE | TOTAL |
|------------|---------|
| ENTRY | SESSION |
| -1.86 | -1.86 |

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DICTIONARY FILE UPDATES: 29 APR 2003 HIGHEST RN 507441-92-1

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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP
PROPERTIES for more information. See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> d his

(FILE 'HOME' ENTERED AT 16:12:39 ON 30 APR 2003)

FILE 'REGISTRY' ENTERED AT 16:12:51 ON 30 APR 2003

| | |
|-----|---|
| L1 | 12 S CARBOXYPHENOXYACETIC ACID |
| L2 | 1 S HYDROQUINONE O O DIACETIC ACID |
| L3 | 0 S CAROXY O ANISIC ACID |
| L4 | 0 S CARBOXY O ANISIC ACID |
| L5 | 190 S CARBOXY AND ANISIC ACID |
| L6 | 2719 S ANISIC ACID |
| L7 | 1 S ANISIC ACID/CN |
| L8 | 190 S CARBOXY AND ANISIC ACID |
| L9 | 4 S RESORCINOL AND DIACETIC ACID |
| L10 | 28918 S NAPHTHALENECARBOXYLIC ACID |
| L11 | 6 S CARBOXYMETHYL AND THIO AND NAPHTHALENECARBOXYLIC ACID |
| L12 | 0 S CARBOXYMETHYLTHIO ADJ BENZOIC ACID |
| L13 | 18 S CARBOXYMETHYLTHIO AND BENZO? |

FILE 'CA' ENTERED AT 16:23:05 ON 30 APR 2003
S 101714-12-9/REG#

FILE 'REGISTRY' ENTERED AT 16:23:09 ON 30 APR 2003
L14 1 S 101714-12-9/RN

FILE 'CA' ENTERED AT 16:23:09 ON 30 APR 2003
L15 2 S L14
L16 62628 S PHOTO? AND (IR OR INFRARED OR INFRA RED)
L17 34 S L16 AND CARBOXYMETHYL

FILE 'REGISTRY' ENTERED AT 16:26:23 ON 30 APR 2003

=> s dianisidine and n and tetraacetic acid

41 DIANISIDINE

4635400 N

1226 TETRAACETIC

5878231 ACID

1219 TETRAACETIC ACID

(TETRAACETIC(W)ACID)

L18 0 DIANISIDINE AND N AND TETRAACETIC ACID

=> s dianisidine and tetraacetic acid

41 DIANISIDINE

1226 TETRAACETIC

5878231 ACID

1219 TETRAACETIC ACID

(TETRAACETIC(W)ACID)

L19 0 DIANISIDINE AND TETRAACETIC ACID

=> s dianisidine and acetic acid

41 DIANISIDINE

645377 ACETIC

5878231 ACID

642742 ACETIC ACID

(ACETIC(W)ACID)

L20 0 DIANISIDINE AND ACETIC ACID

=> s dianisidine and acid

41 DIANISIDINE

5878231 ACID

L21 10 DIANISIDINE AND ACID

=> d 10

L21 ANSWER 10 OF 10 REGISTRY COPYRIGHT 2003 ACS

RN 25619-70-9 REGISTRY

CN 1,1'-Biphenyl, ar,ar'-diisocyanato-ar,ar'-dimethoxy- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Isocyanic acid, ar,ar'-dimethoxybiphenylene ester (7CI, 8CI)

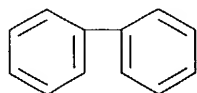
OTHER NAMES:

CN Dianisidine diisocyanate

MF C16 H12 N2 O4

CI IDS, COM

LC STN Files: CA, CAOLD, CAPLUS, CSCHEM, IFICDB, IFIPAT, IFIUDB, USPATFULL



2 (D1-O-Me)

2 (D1-NCO)

19 REFERENCES IN FILE CA (1957 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

19 REFERENCES IN FILE CAPLUS (1957 TO DATE)

4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d 1-9

L21 ANSWER 1 OF 10 REGISTRY COPYRIGHT 2003 ACS

RN 204991-86-6 REGISTRY

CN 2-Pentenedioic acid, 3-(4-methoxy-3-methylphenyl)-, polymer with 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, polymer with 3-(4-methoxy-3-methylphenyl)-2-pentenedioic acid (9CI)

OTHER NAMES:

CN o-Dianisidine-.beta.-(4-methoxy-3-methylphenyl)glutaconic acid copolymer

MF (C14 H16 N2 O2 . C13 H14 O5)x

CI PMS

PCT Polyacrylic, Polyamide, Polyamide formed, Polystyrene, Polyvinyl

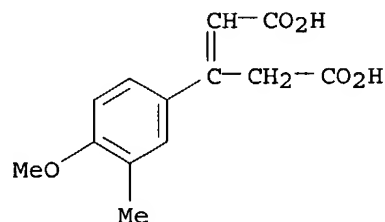
SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 67141-89-3

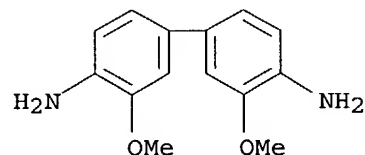
CMF C13 H14 O5



CM 2

CRN 119-90-4

CMF C14 H16 N2 O2



1 REFERENCES IN FILE CA (1957 TO DATE)

1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L21 ANSWER 2 OF 10 REGISTRY COPYRIGHT 2003 ACS

RN 190328-20-2 REGISTRY

CN 1,4-Benzenedicarbonyl dichloride, polymer with 1,4-benzenediamine, 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine and 4,4'-oxybis[benzenamine] (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,4-Benzenediamine, polymer with 1,4-benzenedicarbonyl dichloride, 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine and 4,4'-oxybis[benzenamine] (9CI)

CN Benzenamine, 4,4'-oxybis-, polymer with 1,4-benzenediamine, 1,4-benzenedicarbonyl dichloride and 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-

diamine (9CI)
CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, polymer with
1,4-benzenediamine, 1,4-benzenedicarbonyl dichloride and
4,4'-oxybis[benzenamine] (9CI)

OTHER NAMES:

CN 4,4'-Diaminodiphenyl ether-o-dianisidine-p-phenylenediamine-
terephthalic acid chloride copolymer

MF (C14 H16 N2 O2 . C12 H12 N2 O . C8 H4 Cl2 O2 . C6 H8 N2)x

CI PMS

PCT Polyamide, Polyamide formed, Polyether

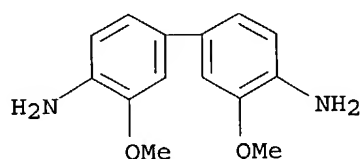
SR CA

LC STN Files: CA, CAPLUS

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CRN 119-90-4

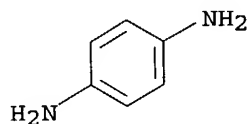
CMF C14 H16 N2 O2



CM 2

CRN 106-50-3

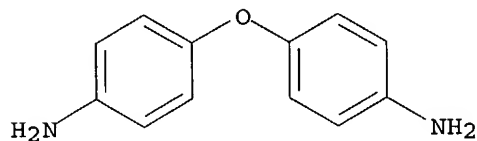
CMF C6 H8 N2



CM 3

CRN 101-80-4

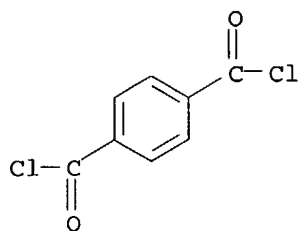
CMF C12 H12 N2 O



CM 4

CRN 100-20-9

CMF C8 H4 Cl2 O2

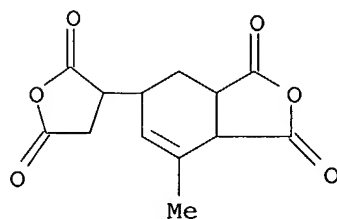


2 REFERENCES IN FILE CA (1957 TO DATE)
2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L21 ANSWER 3 OF 10 REGISTRY COPYRIGHT 2003 ACS
RN 157609-05-7 REGISTRY
CN 1,3-Isobenzofurandione, 3a,4,5,7a-tetrahydro-7-methyl-5-(tetrahydro-2,5-dioxo-3-furanyl)-, polymer with 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, polymer with 3a,4,5,7a-tetrahydro-7-methyl-5-(tetrahydro-2,5-dioxo-3-furanyl)-1,3-isobenzofurandione (9CI)
OTHER NAMES:
CN o-Dianisidine-5-(2,5-dioxotetrahydro-3-furanyl)-3-methyl-3-cyclohexene-1,2-dicarboxylic acid dianhydride copolymer
MF (C14 H16 N2 O2 . C13 H12 O6)x
CI PMS
PCT Polyamic acid, Polyamic acid formed, Polyimide, Polyimide formed
SR CA
LC STN Files: CA, CAPLUS

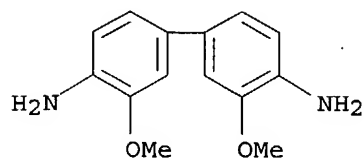
CM 1

CRN 73003-90-4
CMF C13 H12 O6



CM 2

CRN 119-90-4
CMF C14 H16 N2 O2

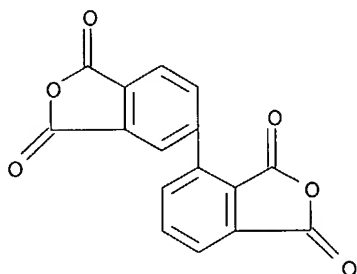


1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L21 ANSWER 4 OF 10 REGISTRY COPYRIGHT 2003 ACS
 RN 130424-76-9 REGISTRY
 CN [4,5'-Biisobenzofuran]-1,1',3,3'-tetrone, polymer with
 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, polymer with
 [4,5'-biisobenzofuran]-1,1',3,3'-tetrone (9CI)
 OTHER NAMES:
 CN 2,3,3',4'-Biphenyltetracarboxylic acid dianhydride-o-dianisidine
 copolymer
 MF (C16 H6 O6 . C14 H16 N2 O2)x
 CI PMS
 PCT Polyamic acid, Polyamic acid formed, Polyimide, Polyimide formed
 SR CA
 LC STN Files: CA, CAPLUS

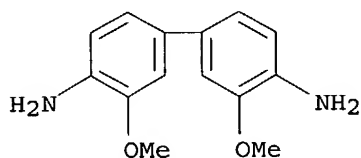
CM 1

CRN 36978-41-3
 CMF C16 H6 O6



CM 2

CRN 119-90-4
 CMF C14 H16 N2 O2



1 REFERENCES IN FILE CA (1957 TO DATE)
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L21 ANSWER 5 OF 10 REGISTRY COPYRIGHT 2003 ACS
 RN 114824-60-1 REGISTRY
 CN Benzoic acid, 3,5-diamino-, polymer with 4,4'-(9,10-anthracenediyl)bis[benzenamine], [5,5'-biisobenzofuran]-1,1',3,3'-tetrone, 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine, 2,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 2,8-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,4'-methylenebis[2-methylbenzenamine] and 4,4'-oxybis[benzenamine] (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:

CN 3,7-Dibenzothiophenediamine, 2,6-dimethyl-, 5,5-dioxide, polymer with 4,4'-(9,10-anthracenediyl)bis[benzenamine], [5,5'-biisobenzofuran]-1,1',3,3'-tetrone, 3,5-diaminobenzoic acid, 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine, 2,8-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,4'-methylenebis[2-methylbenzenamine] and 4,4'-oxybis[benzenamine] (9CI)

CN 3,7-Dibenzothiophenediamine, 2,8-dimethyl-, 5,5-dioxide, polymer with 4,4'-(9,10-anthracenediyl)bis[benzenamine], [5,5'-biisobenzofuran]-1,1',3,3'-tetrone, 3,5-diaminobenzoic acid, 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine, 2,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,4'-methylenebis[2-methylbenzenamine] and 4,4'-oxybis[benzenamine] (9CI)

CN 3,7-Dibenzothiophenediamine, 4,6-dimethyl-, 5,5-dioxide, polymer with 4,4'-(9,10-anthracenediyl)bis[benzenamine], [5,5'-biisobenzofuran]-1,1',3,3'-tetrone, 3,5-diaminobenzoic acid, 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine, 2,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 2,8-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,4'-methylenebis[2-methylbenzenamine] and 4,4'-oxybis[benzenamine] (9CI)

CN Benzenamine, 4,4'-(9,10-anthracenediyl)bis-, polymer with [5,5'-biisobenzofuran]-1,1',3,3'-tetrone, 3,5-diaminobenzoic acid, 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine, 2,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 2,8-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,4'-methylenebis[2-methylbenzenamine] and 4,4'-oxybis[benzenamine] (9CI)

CN Benzenamine, 4,4'-methylenebis[2-methyl-, polymer with 4,4'-(9,10-anthracenediyl)bis[benzenamine], [5,5'-biisobenzofuran]-1,1',3,3'-tetrone, 3,5-diaminobenzoic acid, 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine, 2,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 2,8-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide and 4,4'-oxybis[benzenamine] (9CI)

CN Benzenamine, 4,4'-oxybis-, polymer with 4,4'-(9,10-anthracenediyl)bis[benzenamine], [5,5'-biisobenzofuran]-1,1',3,3'-tetrone, 3,5-diaminobenzoic acid, 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine, 2,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 2,8-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide and 4,4'-methylenebis[2-methylbenzenamine] (9CI)

CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, polymer with 4,4'-(9,10-anthracenediyl)bis[benzenamine], [5,5'-biisobenzofuran]-1,1',3,3'-tetrone, 3,5-diaminobenzoic acid, 2,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 2,8-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,4'-methylenebis[2-methylbenzenamine] and 4,4'-oxybis[benzenamine] (9CI)

CN [5,5'-Biisobenzofuran]-1,1',3,3'-tetrone, polymer with 4,4'-(9,10-anthracenediyl)bis[benzenamine], 3,5-diaminobenzoic acid, 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine, 2,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 2,8-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,4'-methylenebis[2-methylbenzenamine] and 4,4'-oxybis[benzenamine] (9CI)

OTHER NAMES:

CN 3,3',4,4'-Biphenyltetracarboxylic dianhydride-bis(4-amino-3-methylphenyl)methane-5,10-bis(4-aminophenyl)anthracene-3,5-diaminobenzoic acid-3,7-diaminodimethyldiphenylenesulfone-4,4'-diaminodiphenyl ether-o-dianisidine copolymer

MF (C26 H20 N2 . C16 H6 O6 . C15 H18 N2 . C14 H16 N2 O2 . C14 H14 N2 O2 S . C14 H14 N2 O2 S . C14 H14 N2 O2 S . C12 H12 N2 O . C7 H8 N2 O2)x

CI PMS

PCT Polyamic acid, Polyamic acid formed, Polyamide, Polyamide formed, Polyether, Polyimide, Polyimide formed, Polysulfone

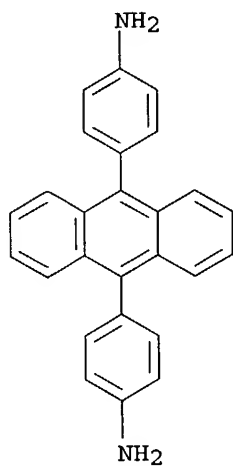
SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 106704-35-2

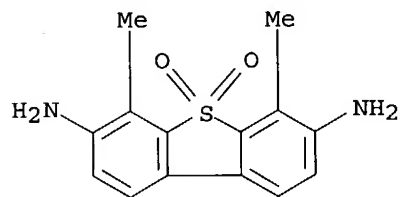
CMF C26 H20 N2



CM 2

CRN 105524-04-7

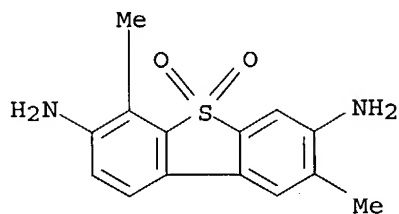
CMF C14 H14 N2 O2 S



CM 3

CRN 105524-03-6

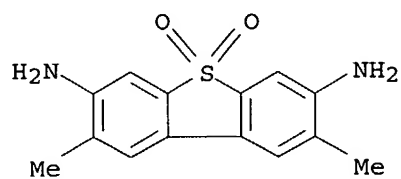
CMF C14 H14 N2 O2 S



CM 4

CRN 55011-44-4

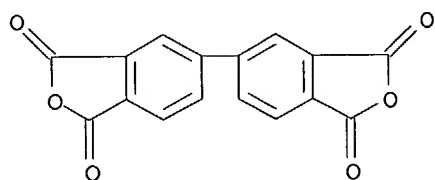
CMF C14 H14 N2 O2 S



CM 5

CRN 2420-87-3

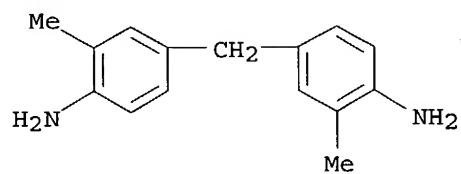
CMF C16 H6 O6



CM 6

CRN 838-88-0

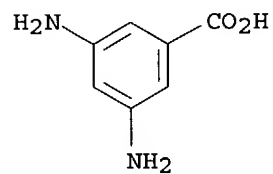
CMF C15 H18 N2



CM 7

CRN 535-87-5

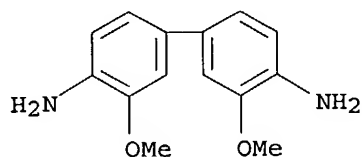
CMF C7 H8 N2 O2



CM 8

CRN 119-90-4

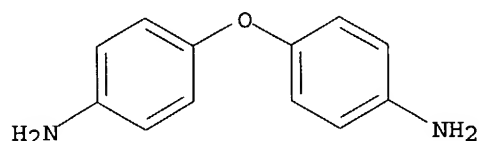
CMF C14 H16 N2 O2



CM 9

CRN 101-80-4

CMF C12 H12 N2 O



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L21 ANSWER 6 OF 10 REGISTRY COPYRIGHT 2003 ACS

RN 114803-36-0 REGISTRY

CN [5,5'-Biisobenzofuran]-1,1',3,3'-tetrone, polymer with
4,4'-(9,10-anthracenediyl)bis[benzenamine], 3,5-diaminobenzoic acid,
3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine, 2,6-dimethyl-3,7-
dibenzothiophenediamine 5,5-dioxide, 2,8-dimethyl-3,7-
dibenzothiophenediamine 5,5-dioxide, 4,6-dimethyl-3,7-
dibenzothiophenediamine 5,5-dioxide, 4,4'-methylenebis[benzenamine],
4,4'-methylenebis[2-methylbenzenamine], 4,4'-oxybis[benzenamine],
2,6-pyridinediamine, 4,4'-sulfonylbis[benzenamine] and
4,4'-[sulfonylbis(4,1-phenyleneoxy)]bis[benzenamine] (9CI) (CA INDEX
NAME)

OTHER CA INDEX NAMES:

CN 2,6-Pyridinediamine, polymer contg. (9CI)
CN 3,7-Dibenzothiophenediamine, 2,6-dimethyl-, 5,5-dioxide, polymer contg.
(9CI)
CN 3,7-Dibenzothiophenediamine, 2,8-dimethyl-, 5,5-dioxide, polymer contg.
(9CI)
CN 3,7-Dibenzothiophenediamine, 4,6-dimethyl-, 5,5-dioxide, polymer contg.
(9CI)
CN Benzenamine, 4,4'-(9,10-anthracenediyl)bis-, polymer contg. (9CI)
CN Benzenamine, 4,4'-methylenebis-, polymer contg. (9CI)
CN Benzenamine, 4,4'-methylenebis[2-methyl-, polymer contg. (9CI)
CN Benzenamine, 4,4'-oxybis-, polymer contg. (9CI)
CN Benzenamine, 4,4'-sulfonylbis-, polymer contg. (9CI)
CN Benzenamine, 4,4'-[sulfonylbis(4,1-phenyleneoxy)]bis-, polymer contg.
(9CI)

CN Benzoic acid, 3,5-diamino-, polymer contg. (9CI)

CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, polymer contg. (9CI)

OTHER NAMES:

CN 3,3',4,4'-Biphenyltetracarboxylic dianhydride-bis(4-amino-3-
methylphenyl)methane-4,4'-bis(4-aminophenoxy)diphenylsulfone-5,10-bis(4-
aminophenyl)anthracene-3,5-diaminobenzoic acid-3,7-
diaminodimethyldiphenylsulfone-4,4'-diaminodiphenyl
ether-4,4'-diaminodiphenylmethane-4,4'-diaminodiphenylsulfone-2,6-
diaminopyridine-o-dianisidine copolymer

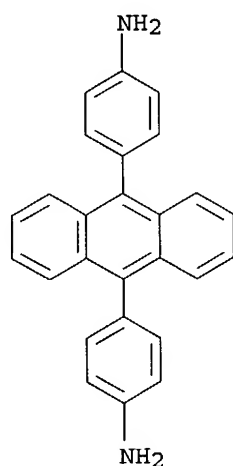
MF (C26 H20 N2 . C24 H20 N2 O4 S . C16 H6 O6 . C15 H18 N2 . C14 H16 N2 O2 .
C14 H14 N2 O2 S . C14 H14 N2 O2 S . C14 H14 N2 O2 S . C13 H14 N2 . C12 H12
N2 O2 S . C12 H12 N2 O . C7 H8 N2 O2 . C5 H7 N3)x

CI PMS
PCT Polyamic acid, Polyamic acid formed, Polyamide, Polyamide formed,
Polyether, Polyimide, Polyimide formed, Polysulfone
SR CA
LC STN Files: CA, CAPLUS

CM 1

CRN 106704-35-2

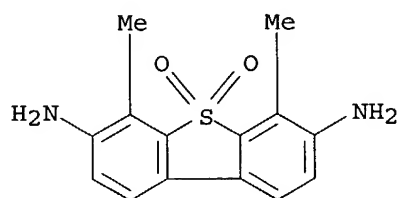
CMF C26 H20 N2



CM 2

CRN 105524-04-7

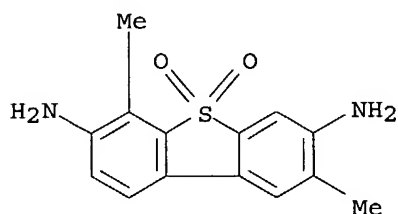
CMF C14 H14 N2 O2 S



CM 3

CRN 105524-03-6

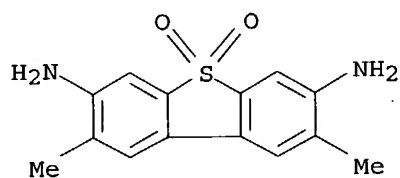
CMF C14 H14 N2 O2 S



CM 4

CRN 55011-44-4

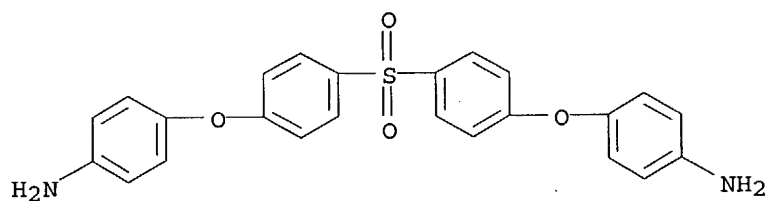
CMF C14 H14 N2 O2 S



CM 5

CRN 13080-89-2

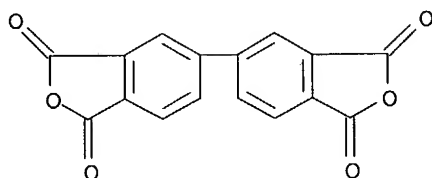
CMF C24 H20 N2 O4 S



CM 6

CRN 2420-87-3

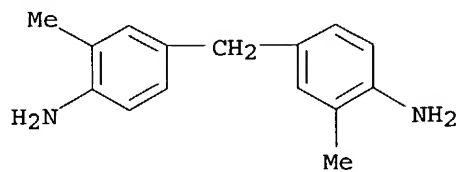
CMF C16 H6 O6



CM 7

CRN 838-88-0

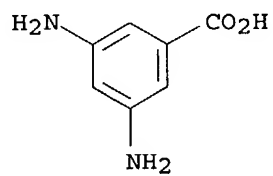
CMF C15 H18 N2



CM 8

CRN 535-87-5

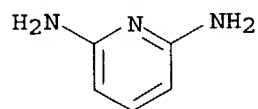
CMF C7 H8 N2 O2



CM 9

CRN 141-86-6

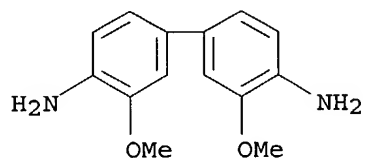
CMF C5 H7 N3



CM 10

CRN 119-90-4

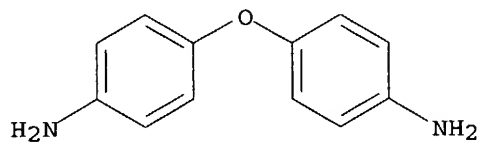
CMF C14 H16 N2 O2



CM 11

CRN 101-80-4

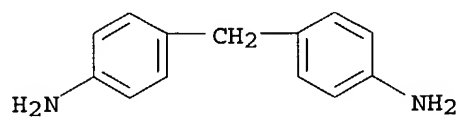
CMF C12 H12 N2 O



CM 12

CRN 101-77-9

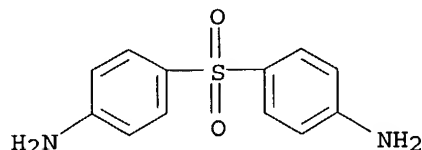
CMF C13 H14 N2



CM 13

CRN 80-08-0

CMF C12 H12 N2 O2 S



1 REFERENCES IN FILE CA (1957 TO DATE)

1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L21 ANSWER 7 OF 10 REGISTRY COPYRIGHT 2003 ACS

RN 77238-79-0 REGISTRY

CN [5,5'-Biisobenzofuran]-1,1',3,3'-tetrone, polymer with
3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine and 4,4'-oxybis[benzenamine]
(9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Benzenamine, 4,4'-oxybis-, polymer with [5,5'-biisobenzofuran]-1,1',3,3'-
tetrone and 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine (9CI)

CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, polymer with
[5,5'-biisobenzofuran]-1,1',3,3'-tetrone and 4,4'-oxybis[benzenamine]
(9CI)

OTHER NAMES:

CN 3,3',4,4'-Biphenyltetracarboxylic acid dianhydride-4,4'-
diaminodiphenyl ether-3,3'-dimethoxybenzidine copolymer

CN 3,3',4,4'-Biphenyltetracarboxylic dianhydride-4,4'-diaminodiphenyl
ether-o-dianisidine copolymer

MF (C16 H6 O6 . C14 H16 N2 O2 . C12 H12 N2 O)x

CI PMS

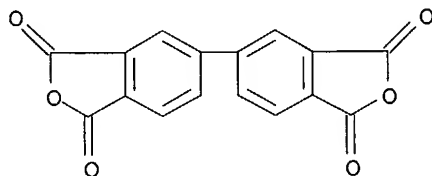
PCT Polyamic acid, Polyamic acid formed, Polyether, Polyimide, Polyimide
formed

LC STN Files: CA, CAPLUS

CM 1

CRN 2420-87-3

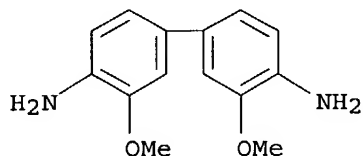
CMF C16 H6 O6



CM 2

CRN 119-90-4

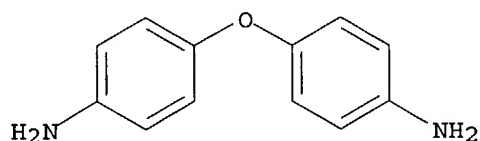
CMF C14 H16 N2 O2



CM 3

CRN 101-80-4

CMF C12 H12 N2 O



2 REFERENCES IN FILE CA (1957 TO DATE)

2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L21 ANSWER 8 OF 10 REGISTRY COPYRIGHT 2003 ACS

RN 53632-08-9 REGISTRY

CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, conjugate diacid
(9CI) (CA INDEX NAME)

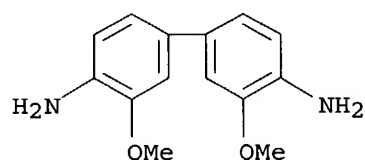
OTHER NAMES:

CN o-Dianisidine conjugate diacid

MF C14 H16 N2 O2 . 2 H

LC STN Files: CA, CAPLUS

CRN (119-90-4)



● 2 H⁺

3 REFERENCES IN FILE CA (1957 TO DATE)

3 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L21 ANSWER 9 OF 10 REGISTRY COPYRIGHT 2003 ACS

RN 34921-95-4 REGISTRY

CN 2-Propenoic acid, 2-methyl-, (4,28-dimethoxy-16,16-dimethyl-7,25-dioxo-8,11,21,24-tetraoxa-6,26-diazapentacyclo[25.2.2.22,5.212,15.217,20]heptatriaconta-2,4,12,14,17,19,27,29,30,32,34,36-dodecaene-9,23-diyl)bis(methylene) ester (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

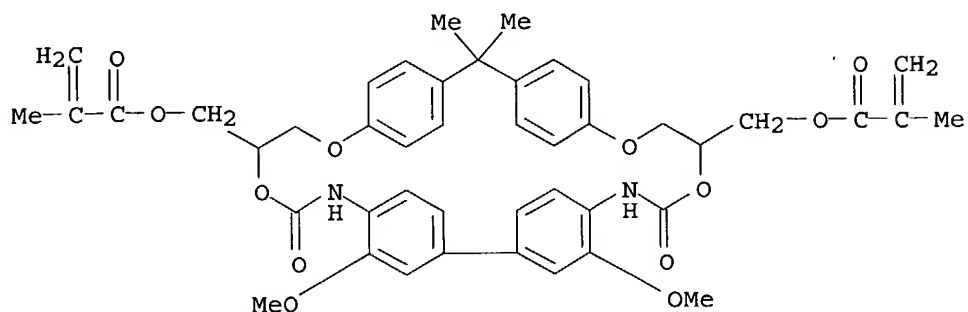
CN 8,11,21,24-Tetraoxa-6,26-diazapentacyclo[25.2.2.22,5.212,15.217,20]heptatriacontane, 2-propenoic acid deriv.

OTHER NAMES:

CN 2,2-Propane bis[3-(4-phenoxy)-1,2-hydroxypropane-1-methacrylate]
adduct with dianisidine diisocyanate

MF C45 H48 N2 O12

LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

=> s dianisidine

L22 41 DIANISIDINE

=> d 41

L22 ANSWER 41 OF 41 REGISTRY COPYRIGHT 2003 ACS

RN 91-91-8 REGISTRY

CN [1,1'-Biphenyl]-4,4'-bis(diazonium), 3,3'-dimethoxy-, dichloride (9CI)
(CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 4,4'-Biphenylbis(diazonium), 3,3'-dimethoxy-, dichloride (8CI)

CN 4,4'-Bi[2-methoxybenzenediazonium chloride] (6CI, 7CI)

OTHER NAMES:

CN Blue BNS salt

CN Diazo Blue B

CN o-Dianisidinetetrazonium chloride

DR 90145-79-2

MF C14 H12 N4 O2 . 2 Cl

CI COM

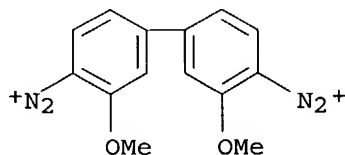
LC STN Files: AGRICOLA, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS,
CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, IFICDB, IFIPAT,
IFIUDB, TOXCENTER, USPATFULL

(*File contains numerically searchable property data)

Other Sources: EINECS**, NDSL**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)

CRN (20282-70-6)



27 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
27 REFERENCES IN FILE CAPLUS (1957 TO DATE)
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d 40

L22 ANSWER 40 OF 41 REGISTRY COPYRIGHT 2003 ACS

RN 119-90-4 REGISTRY

CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Benzidine, 3,3'-dimethoxy- (8CI)

CN Fast Blue B Base (6CI)

OTHER NAMES:

CN 3,3'-Dimethoxy-4,4'-diaminodiphenyl

CN 3,3'-Dimethoxybenzidine

CN 3,3'-Dimethoxybenzidine

CN 4,4'-Bi-o-anisidine

CN 4,4'-Diamino-3,3'-dimethoxy-1,1'-biphenyl

CN Amacel Developed Navy SD

CN Azogene Fast Blue B

CN Blue Base Irga B

CN Blue Base NB

CN Blue BN Base

CN C.I. Disperse Black 6

CN Cellitazol B

CN Cibacete Diazo Navy Blue 2B

CN Diacel Navy DC

CN **Dianisidine**

CN Fast Blue Base B

CN Fast Blue DSC Base

CN Hiltonil Fast Blue B Base

CN Kayaku Blue B Base

CN Lake Blue B Base

CN Mitsui Blue B Base

CN Naphthanil Blue B Base

CN **o-Dianisidine**

CN Setacyl Diazo Navy R

FS 3D CONCORD

DR 59777-10-5

MF C14 H16 N2 O2

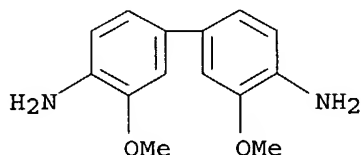
CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS,
CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DRUGU,
EMBASE, GMEIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK*,
MSDS-OHS, NIOSHTIC, PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER, ULIDAT,
USPAT2, USPATFULL

(*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1519 REFERENCES IN FILE CA (1957 TO DATE)
35 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1519 REFERENCES IN FILE CAPLUS (1957 TO DATE)
18 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d ti 1-39

'TI' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

The following are valid formats:

Substance information can be displayed by requesting individual fields or predefined formats. The predefined substance formats are: (RN = CAS Registry Number)

REG - RN
SAM - Index Name, MF, and structure - no RN
FIDE - All substance data, except sequence data
IDE - FIDE, but only 50 names
SQIDE - IDE, plus sequence data
SQIDE3 - Same as SQIDE, but 3-letter amino acid codes are used
SQD - Protein sequence data, includes RN
SQD3 - Same as SQD, but 3-letter amino acid codes are used
SQN - Protein sequence name information, includes RN

CALC - Table of calculated properties
EPROP - Table of experimental properties
PROP - EPROP and CALC

Any CA File format may be combined with any substance format to obtain CA references citing the substance. The substance formats must be cited first. The CA File predefined formats are:

ABS -- Abstract
APPS -- Application and Priority Information
BIB -- CA Accession Number, plus Bibliographic Data
CAN -- CA Accession Number
CBIB -- CA Accession Number, plus Bibliographic Data (compressed)
IND -- Index Data
IPC -- International Patent Classification
PATS -- PI, SO
STD -- BIB, IPC, and NCL

IABS --ABS, indented, with text labels
IBIB -- BIB, indented, with text labels
ISTD -- STD format, indented

OBIB ----- AN, plus Bibliographic Data (original)
OIBIB ----- OBIB, indented with text labels

SBIB ----- BIB, no citations
SIBIB ----- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when it is available.

The MAX format is the same as ALL.

The IALL format is the same as ALL with BIB ABS and IND indented, with text labels.

For additional information, please consult the following help messages:

HELP DFIELDS -- To see a complete list of individual display fields.
HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):end

=> d 1-39

L22 ANSWER 1 OF 41 REGISTRY COPYRIGHT 2003 ACS
RN 452338-77-1 REGISTRY
CN **Proantodianisidine (9CI)** (CA INDEX NAME)
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

1 REFERENCES IN FILE CA (1957 TO DATE)

1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 2 OF 41 REGISTRY COPYRIGHT 2003 ACS
RN 252882-12-5 REGISTRY
CN 1,4-Cyclohexadiene-1,4-dicarbonitrile, 2,5-dibromo-3,6-dioxo-, compd. with
dichloromethane and 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine (10:7:10)
(9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, compd. with
2,5-dibromo-3,6-dioxo-1,4-cyclohexadiene-1,4-dicarbonitrile and
dichloromethane (10:10:7) (9CI)

OTHER NAMES:

CN **o-Dianisidine-2,5-dibromo-3,6-dicyano-1,4-benzoquinone
charge-transfer complex**

MF C14 H16 N2 O2 . C8 Br2 N2 O2 . 7/10 C H2 Cl2

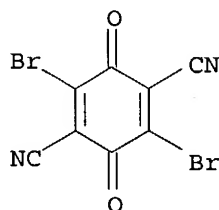
SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 4655-72-5

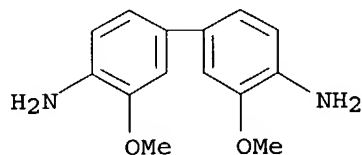
CMF C8 Br2 N2 O2



CM 2

CRN 119-90-4

CMF C14 H16 N2 O2



CM 3

CRN 75-09-2
CMF C H2 Cl2

Cl-CH₂-Cl

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 3 OF 41 REGISTRY COPYRIGHT 2003 ACS

RN 252882-11-4 REGISTRY

CN 1,4-Cyclohexadiene-1,4-dicarbonitrile, 2,5-dichloro-3,6-dioxo-, compd. with benzene and 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine (20:7:20) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, compd. with benzene and 2,5-dichloro-3,6-dioxo-1,4-cyclohexadiene-1,4-dicarbonitrile (20:7:20) (9CI)

OTHER NAMES:

CN o-Dianisidine-2,5-dichloro-3,6-dicyano-1,4-benzoquinone charge-transfer complex

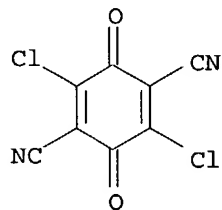
MF C14 H16 N2 O2 . C8 Cl2 N2 O2 . 7/20 C6 H6

SR CA

LC STN Files: CA, CAPLUS

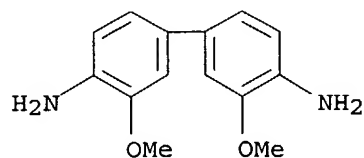
CM 1

CRN 4655-79-2
CMF C8 Cl2 N2 O2



CM 2

CRN 119-90-4
CMF C14 H16 N2 O2



CM 3

CRN 71-43-2
CMF C6 H6

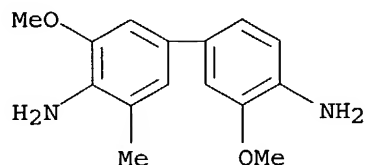


1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 4 OF 41 REGISTRY COPYRIGHT 2003 ACS
RN 238397-98-3 REGISTRY
CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-5-methyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN **5-Methyl-o-dianisidine**
FS 3D CONCORD
MF C15 H18 N2 O2
SR CA
LC STN Files: CA, CAPLUS



****PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT****

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 5 OF 41 REGISTRY COPYRIGHT 2003 ACS
RN 204991-86-6 REGISTRY
CN 2-Pentenedioic acid, 3-(4-methoxy-3-methylphenyl)-, polymer with 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

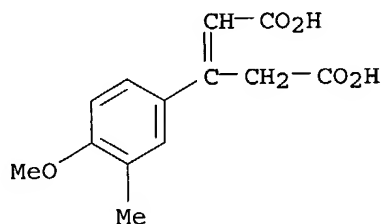
CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, polymer with 3-(4-methoxy-3-methylphenyl)-2-pentenedioic acid (9CI)

OTHER NAMES:

CN **o-Dianisidine-.beta.-(4-methoxy-3-methylphenyl)glutaconic acid copolymer**
MF (C14 H16 N2 O2 . C13 H14 O5)x
CI PMS
PCT Polyacrylic, Polyamide, Polyamide formed, Polystyrene, Polyvinyl
SR CA
LC STN Files: CA, CAPLUS

CM 1

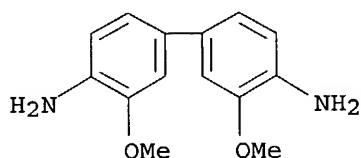
CRN 67141-89-3
CMF C13 H14 O5



CM 2

CRN 119-90-4

CMF C14 H16 N2 O2



1 REFERENCES IN FILE CA (1957 TO DATE)

1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 6 OF 41 REGISTRY COPYRIGHT 2003 ACS

RN 190328-20-2 REGISTRY

CN 1,4-Benzenedicarbonyl dichloride, polymer with 1,4-benzenediamine, 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine and 4,4'-oxybis[benzenamine] (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,4-Benzenediamine, polymer with 1,4-benzenedicarbonyl dichloride, 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine and 4,4'-oxybis[benzenamine] (9CI)

CN Benzenamine, 4,4'-oxybis-, polymer with 1,4-benzenediamine, 1,4-benzenedicarbonyl dichloride and 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine (9CI)

CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, polymer with 1,4-benzenediamine, 1,4-benzenedicarbonyl dichloride and 4,4'-oxybis[benzenamine] (9CI)

OTHER NAMES:

CN **4,4'-Diaminodiphenyl ether-o-dianisidine-p-phenylenediamine-terephthalic acid chloride copolymer**

MF (C14 H16 N2 O2 . C12 H12 N2 O . C8 H4 Cl2 O2 . C6 H8 N2)x

CI PMS

PCT Polyamide, Polyamide formed, Polyether

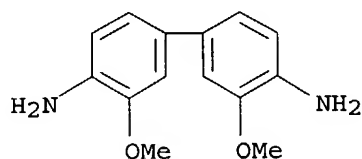
SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 119-90-4

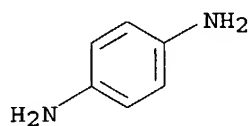
CMF C14 H16 N2 O2



CM 2

CRN 106-50-3

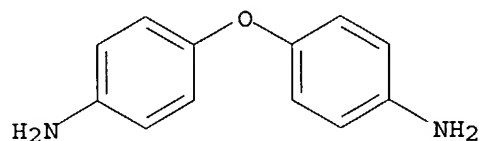
CMF C6 H8 N2



CM 3

CRN 101-80-4

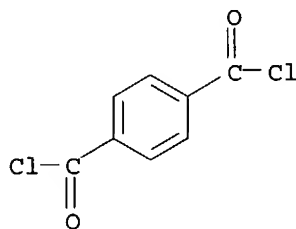
CMF C12 H12 N2 O



CM 4

CRN 100-20-9

CMF C8 H4 Cl2 O2



2 REFERENCES IN FILE CA (1957 TO DATE)

2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 7 OF 41 REGISTRY COPYRIGHT 2003 ACS

RN 188347-25-3 REGISTRY

CN 1,4-Benzenedicarbonyl dichloride, 2-chloro-, polymer with 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine and 3,3'-[1,3-phenylenebis(oxy)]bis[benzenamine] (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Benzenamine, 3,3'-[1,3-phenylenebis(oxy)]bis-, polymer with 2-chloro-1,4-benzenedicarbonyl dichloride and 3,3'-dimethoxy[1,1'-

biphenyl]-4,4'-diamine (9CI)
CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, polymer with
2-chloro-1,4-benzenedicarbonyl dichloride and 3,3'-[1,3-
phenylenebis(oxy)]bis[benzenamine] (9CI)

OTHER NAMES:

CN 1,3-Bis(3-aminophenoxy)benzene-2-chloroterephthaloyl
chloride-o-dianisidine copolymer

MF (C18 H16 N2 O2 . C14 H16 N2 O2 . C8 H3 Cl3 O2)x

CI PMS

PCT Polyamide, Polyamide formed, Polyether

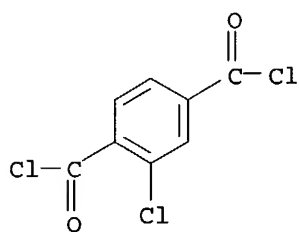
SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 13815-87-7

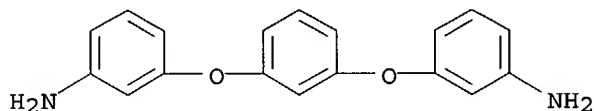
CMF C8 H3 Cl3 O2



CM 2

CRN 10526-07-5

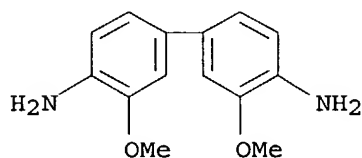
CMF C18 H16 N2 O2



CM 3

CRN 119-90-4

CMF C14 H16 N2 O2



1 REFERENCES IN FILE CA (1957 TO DATE)

1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 8 OF 41 REGISTRY COPYRIGHT 2003 ACS

RN 157609-05-7 REGISTRY

CN 1,3-Isobenzofurandione, 3a,4,5,7a-tetrahydro-7-methyl-5-(tetrahydro-2,5-dioxo-3-furanyl)-, polymer with 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, polymer with
3a,4,5,7a-tetrahydro-7-methyl-5-(tetrahydro-2,5-dioxo-3-furanyl)-1,3-
isobenzofurandione (9CI)

OTHER NAMES:

CN **o-Dianisidine-5-(2,5-dioxotetrahydro-3-furanyl)-3-methyl-3-
cyclohexene-1,2-dicarboxylic acid dianhydride copolymer**

MF (C14 H16 N2 O2 . C13 H12 O6)x

CI PMS

PCT Polyamic acid, Polyamic acid formed, Polyimide, Polyimide formed

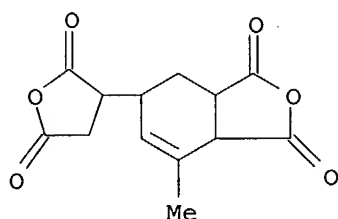
SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 73003-90-4

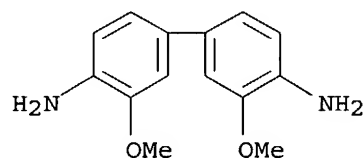
CMF C13 H12 O6



CM 2

CRN 119-90-4

CMF C14 H16 N2 O2



1 REFERENCES IN FILE CA (1957 TO DATE)

1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 9 OF 41 REGISTRY COPYRIGHT 2003 ACS

RN 130424-76-9 REGISTRY

CN [4,5'-Biisobenzofuran]-1,1',3,3'-tetrone, polymer with
3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, polymer with
[4,5'-biisobenzofuran]-1,1',3,3'-tetrone (9CI)

OTHER NAMES:

CN **2,3,3',4'-Biphenyltetracarboxylic acid dianhydride-o-dianisidine
copolymer**

MF (C16 H6 O6 . C14 H16 N2 O2)x

CI PMS

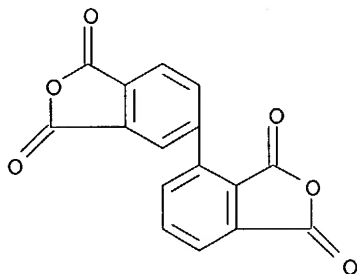
PCT Polyamic acid, Polyamic acid formed, Polyimide, Polyimide formed

SR CA

LC STN Files: CA, CAPLUS

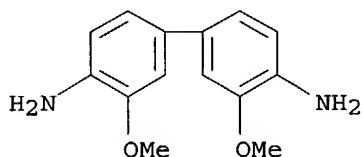
CM 1

CRN 36978-41-3
CMF C16 H6 O6



CM 2

CRN 119-90-4
CMF C14 H16 N2 O2



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 10 OF 41 REGISTRY COPYRIGHT 2003 ACS

RN 114824-60-1 REGISTRY

CN Benzoic acid, 3,5-diamino-, polymer with 4,4'-(9,10-anthracenediyl)bis[benzenamine], [5,5'-biisobenzofuran]-1,1',3,3'-tetrone, 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine, 2,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 2,8-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,4'-methylenebis[2-methylbenzenamine] and 4,4'-oxybis[benzenamine] (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 3,7-Dibenzothiophenediamine, 2,6-dimethyl-, 5,5-dioxide, polymer with 4,4'-(9,10-anthracenediyl)bis[benzenamine], [5,5'-biisobenzofuran]-1,1',3,3'-tetrone, 3,5-diaminobenzoic acid, 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine, 2,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,4'-methylenebis[2-methylbenzenamine] and 4,4'-oxybis[benzenamine] (9CI)

CN 3,7-Dibenzothiophenediamine, 2,8-dimethyl-, 5,5-dioxide, polymer with 4,4'-(9,10-anthracenediyl)bis[benzenamine], [5,5'-biisobenzofuran]-1,1',3,3'-tetrone, 3,5-diaminobenzoic acid, 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine, 2,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,4'-methylenebis[2-methylbenzenamine] and 4,4'-oxybis[benzenamine] (9CI)

CN 3,7-Dibenzothiophenediamine, 4,6-dimethyl-, 5,5-dioxide, polymer with 4,4'-(9,10-anthracenediyl)bis[benzenamine], [5,5'-biisobenzofuran]-1,1',3,3'-tetrone, 3,5-diaminobenzoic acid, 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine, 2,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 2,8-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,4'-methylenebis[2-methylbenzenamine] and 4,4'-oxybis[benzenamine] (9CI)

CN Benzenamine, 4,4'-(9,10-anthracenediyl)bis-, polymer with [5,5'-biisobenzofuran]-1,1',3,3'-tetrone, 3,5-diaminobenzoic acid,

3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine, 2,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 2,8-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,4'-methylenebis[2-methylbenzenamine] and 4,4'-oxybis[benzenamine] (9CI)

CN Benzenamine, 4,4'-methylenebis[2-methyl-, polymer with 4,4'-(9,10-anthracenediyl)bis[benzenamine], [5,5'-biisobenzofuran]-1,1',3,3'-tetrone, 3,5-diaminobenzoic acid, 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine, 2,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 2,8-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide and 4,4'-oxybis[benzenamine] (9CI)

CN Benzenamine, 4,4'-oxybis-, polymer with 4,4'-(9,10-anthracenediyl)bis[benzenamine], [5,5'-biisobenzofuran]-1,1',3,3'-tetrone, 3,5-diaminobenzoic acid, 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine, 2,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 2,8-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide and 4,4'-methylenebis[2-methylbenzenamine] (9CI)

CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, polymer with 4,4'-(9,10-anthracenediyl)bis[benzenamine], [5,5'-biisobenzofuran]-1,1',3,3'-tetrone, 3,5-diaminobenzoic acid, 2,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 2,8-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,4'-methylenebis[2-methylbenzenamine] and 4,4'-oxybis[benzenamine] (9CI)

CN [5,5'-Biisobenzofuran]-1,1',3,3'-tetrone, polymer with 4,4'-(9,10-anthracenediyl)bis[benzenamine], 3,5-diaminobenzoic acid, 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine, 2,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 2,8-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,4'-methylenebis[2-methylbenzenamine] and 4,4'-oxybis[benzenamine] (9CI)

OTHER NAMES:

CN **3,3',4,4'-Biphenyltetracarboxylic dianhydride-bis(4-amino-3-methylphenyl)methane-5,10-bis(4-aminophenyl)anthracene-3,5-diaminobenzoic acid-3,7-diaminodimethyldiphenylenesulfone-4,4'-diaminodiphenyl ether-o-dianisidine copolymer**

MF (C26 H20 N2 . C16 H6 O6 . C15 H18 N2 . C14 H16 N2 O2 . C14 H14 N2 O2 S . C14 H14 N2 O2 S . C14 H14 N2 O2 S . C12 H12 N2 O . C7 H8 N2 O2)x

CI PMS

PCT Polyamic acid, Polyamic acid formed, Polyamide, Polyamide formed, Polyether, Polyimide, Polyimide formed, Polysulfone

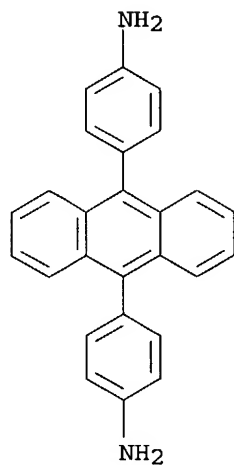
SR CA

LC STN Files: CA, CAPLUS

CM 1

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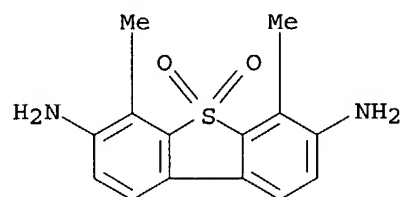
CMF C26 H20 N2



CM 2

CRN 105524-04-7

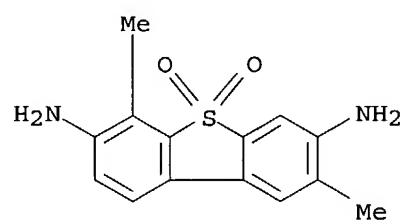
CMF C14 H14 N2 O2 S



CM 3

CRN 105524-03-6

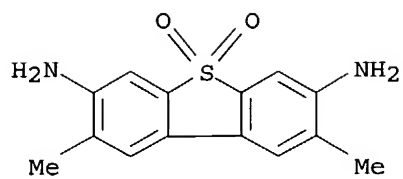
CMF C14 H14 N2 O2 S



CM 4

CRN 55011-44-4

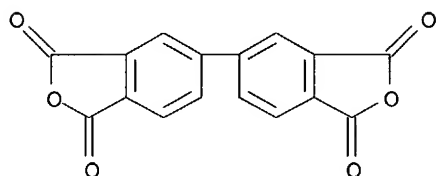
CMF C14 H14 N2 O2 S



CM 5

CRN 2420-87-3

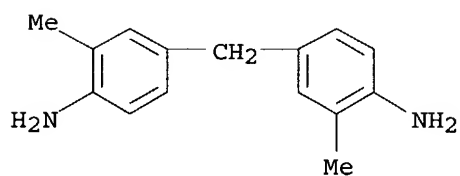
CMF C16 H6 O6



CM 6

CRN 838-88-0

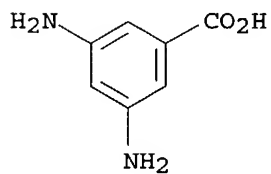
CMF C15 H18 N2



CM 7

CRN 535-87-5

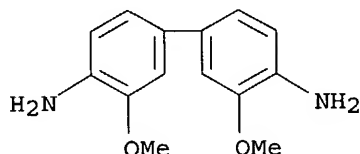
CMF C7 H8 N2 O2



CM 8

CRN 119-90-4

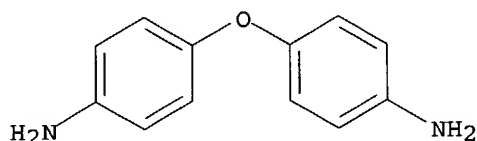
CMF C14 H16 N2 O2



CM 9

CRN 101-80-4

CMF C12 H12 N2 O



1 REFERENCES IN FILE CA (1957 TO DATE)

1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 11 OF 41 REGISTRY COPYRIGHT 2003 ACS

RN 114803-36-0 REGISTRY

CN [5,5'-Biisobenzofuran]-1,1',3,3'-tetrone, polymer with 4,4'-(9,10-anthracenediyl)bis[benzenamine], 3,5-diaminobenzoic acid, 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine, 2,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 2,8-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,6-dimethyl-3,7-dibenzothiophenediamine 5,5-dioxide, 4,4'-methylenebis[benzenamine], 4,4'-methylenebis[2-methylbenzenamine], 4,4'-oxybis[benzenamine], 2,6-pyridinediamine, 4,4'-sulfonylbis[benzenamine] and 4,4'-[sulfonylbis(4,1-phenyleneoxy)]bis[benzenamine] (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2,6-Pyridinediamine, polymer contg. (9CI)

CN 3,7-Dibenzothiophenediamine, 2,6-dimethyl-, 5,5-dioxide, polymer contg. (9CI)

CN 3,7-Dibenzothiophenediamine, 2,8-dimethyl-, 5,5-dioxide, polymer contg. (9CI)

CN 3,7-Dibenzothiophenediamine, 4,6-dimethyl-, 5,5-dioxide, polymer contg. (9CI)

CN Benzenamine, 4,4'-(9,10-anthracenediyl)bis-, polymer contg. (9CI)

CN Benzenamine, 4,4'-methylenebis-, polymer contg. (9CI)

CN Benzenamine, 4,4'-methylenebis[2-methyl-, polymer contg. (9CI)

CN Benzenamine, 4,4'-oxybis-, polymer contg. (9CI)

CN Benzenamine, 4,4'-sulfonylbis-, polymer contg. (9CI)

CN Benzenamine, 4,4'-[sulfonylbis(4,1-phenyleneoxy)]bis-, polymer contg. (9CI)

CN Benzoic acid, 3,5-diamino-, polymer contg. (9CI)

CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, polymer contg. (9CI)

OTHER NAMES:

CN 3,3',4,4'-Biphenyltetracarboxylic dianhydride-bis(4-amino-3-methylphenyl)methane-4,4'-bis(4-aminophenoxy)diphenylsulfone-5,10-bis(4-aminophenyl)anthracene-3,5-diaminobenzoic acid-3,7-diaminodimethyldiphenylsulfone-4,4'-diaminodiphenyl ether-4,4'-diaminodiphenylmethane-4,4'-diaminodiphenylsulfone-2,6-diaminopyridine-o-dianisidine copolymer

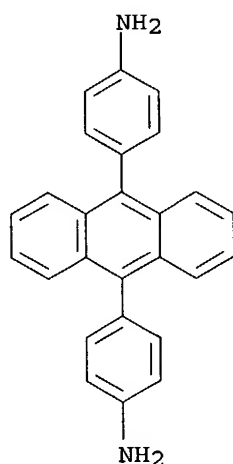
MF (C26 H20 N2 . C24 H20 N2 O4 S . C16 H6 O6 . C15 H18 N2 . C14 H16 N2 O2 . C14 H14 N2 O2 S . C14 H14 N2 O2 S . C14 H14 N2 O2 S . C13 H14 N2 . C12 H12 N2 O2 S . C12 H12 N2 O . C7 H8 N2 O2 . C5 H7 N3)x

CI PMS
PCT Polyamic acid, Polyamic acid formed, Polyamide, Polyamide formed,
Polyether, Polyimide, Polyimide formed, Polysulfone
SR CA
LC STN Files: CA, CAPLUS

CM 1

CRN 106704-35-2

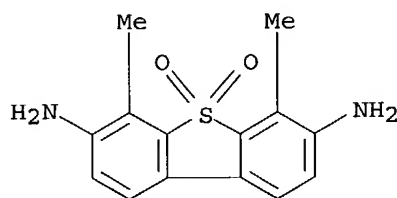
CMF C26 H20 N2



CM 2

CRN 105524-04-7

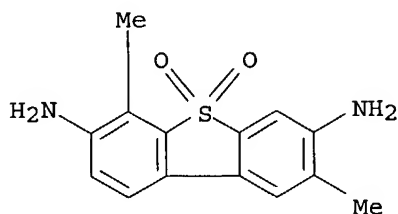
CMF C14 H14 N2 O2 S



CM 3

CRN 105524-03-6

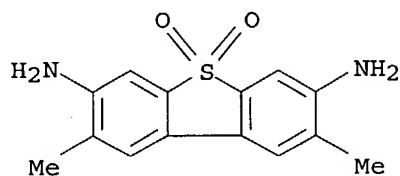
CMF C14 H14 N2 O2 S



CM 4

CRN 55011-44-4

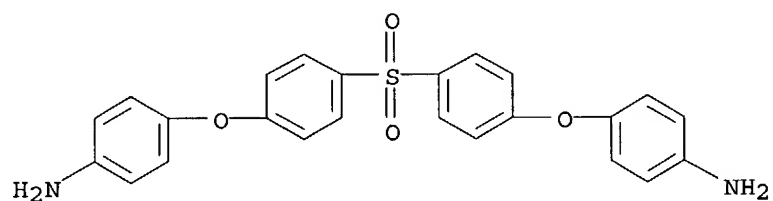
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CM 5

CRN 13080-89-2

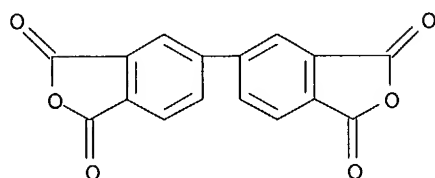
CMF C24 H20 N2 O4 S



CM 6

CRN 2420-87-3

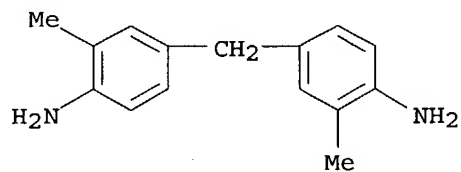
CMF C16 H6 O6



CM 7

CRN 838-88-0

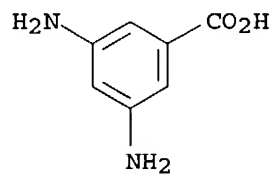
CMF C15 H18 N2



CM 8

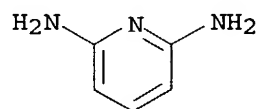
CRN 535-87-5

CMF C7 H8 N2 O2



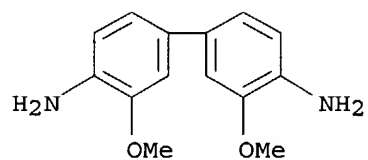
CM 9

CRN 141-86-6
CMF C5 H7 N3



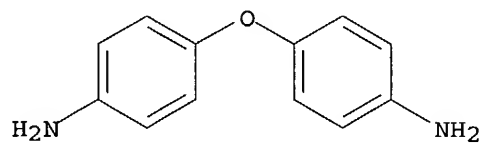
CM 10

CRN 119-90-4
CMF C14 H16 N2 O2



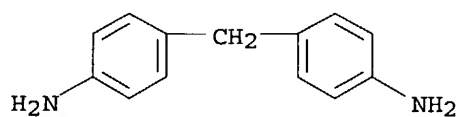
CM 11

CRN 101-80-4
CMF C12 H12 N2 O



CM 12

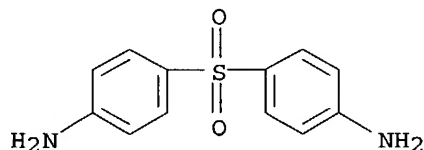
CRN 101-77-9
CMF C13 H14 N2



CM 13

CRN 80-08-0

CMF C12 H12 N2 O2 S



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 12 OF 41 REGISTRY COPYRIGHT 2003 ACS
RN 107852-34-6 REGISTRY
CN **Dianisidine Blue 700-10S (9CI)** (CA INDEX NAME)
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

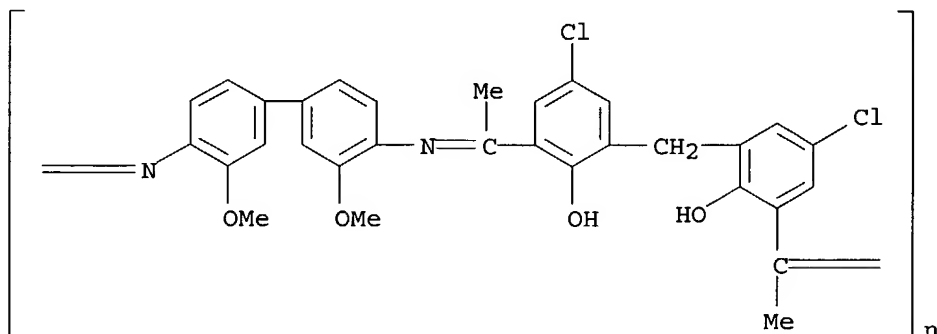
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 13 OF 41 REGISTRY COPYRIGHT 2003 ACS
RN 103490-26-2 REGISTRY
CN Poly[nitrilo(3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diyl)nitriloethylidyne(5-chloro-2-hydroxy-1,3-phenylene)methylene(5-chloro-2-hydroxy-1,3-phenylene)ethylidyne] (9CI) (CA INDEX NAME)

OTHER NAMES:

CN **Dianisidine-3,3'-methylenebis(5-chloro-2-hydroxyacetophenone)**
copolymer, SRU
MF (C31 H26 Cl2 N2 O4)_n
CI PMS
PCT Polyazomethine
SR CA
LC STN Files: CA, CAPLUS

RELATED POLYMERS AVAILABLE WITH POLYLINK



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

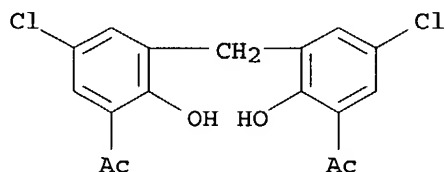
L22 ANSWER 14 OF 41 REGISTRY COPYRIGHT 2003 ACS

RN 103489-68-5 REGISTRY
 CN Ethanone, 1,1'-[methylenebis(5-chloro-2-hydroxy-3,1-phenylene)]bis-,
 polymer with 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine (9CI) (CA INDEX
 NAME)
 OTHER CA INDEX NAMES:
 CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, polymer with
 1,1'-[methylenebis(5-chloro-2-hydroxy-3,1-phenylene)]bis[ethanone] (9CI)
 OTHER NAMES:
 CN **Dianisidine-3,3'-methylenebis(5-chloro-2-hydroxyacetophenone)**
copolymer
 MF (C17 H14 Cl2 O4 . C14 H16 N2 O2)x
 CI PMS
 PCT Polyamine, Polyamine formed, Polyazomethine, Polyazomethine formed
 SR CA
 LC STN Files: CA, CAPLUS

****RELATED POLYMERS AVAILABLE WITH POLYLINK****

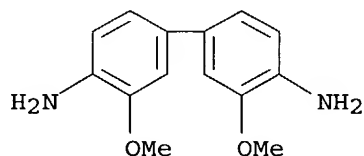
CM 1

CRN 60011-06-5
 CMF C17 H14 Cl2 O4



CM 2

CRN 119-90-4
 CMF C14 H16 N2 O2



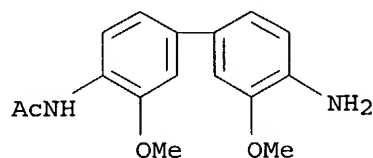
1 REFERENCES IN FILE CA (1957 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 15 OF 41 REGISTRY COPYRIGHT 2003 ACS
 RN 85876-21-7 REGISTRY
 CN **Peroxidase, dianisidine (9CI)** (CA INDEX NAME)
 OTHER NAMES:
 CN **Dianisidine peroxidase**
 CN **o-Dianisidine peroxidase**
 MF Unspecified
 CI MAN
 LC STN Files: BIOSIS, CA, CAPLUS, TOXCENTER

***** STRUCTURE DIAGRAM IS NOT AVAILABLE *****
 5 REFERENCES IN FILE CA (1957 TO DATE)
 5 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 16 OF 41 REGISTRY COPYRIGHT 2003 ACS

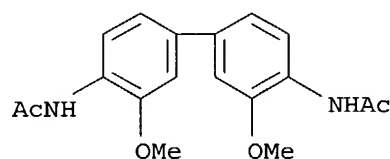
RN 83690-97-5 REGISTRY
 CN Acetamide, N-(4'-amino-3,3'-dimethoxy[1,1'-biphenyl]-4-yl) - (9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN **N-Acetyl-o-dianisidine**
 FS 3D CONCORD
 MF C16 H18 N2 O3
 LC STN Files: BEILSTEIN*, CA, CAPLUS, RTECS*, TOXCENTER
 (*File contains numerically searchable property data)



****PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT****

10 REFERENCES IN FILE CA (1957 TO DATE)
 10 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 17 OF 41 REGISTRY COPYRIGHT 2003 ACS
 RN 83310-76-3 REGISTRY
 CN Acetamide, N,N'-(3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis- (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN 4',4'''-Bi-o-acetanisidide (6CI)
 OTHER NAMES:
 CN **N,N'-Diacetyl-o-dianisidine**
 FS 3D CONCORD
 MF C18 H20 N2 O4
 CI COM
 LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CHEMCATS, RTECS*, TOXCENTER
 (*File contains numerically searchable property data)



****PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT****

14 REFERENCES IN FILE CA (1957 TO DATE)
 14 REFERENCES IN FILE CAPLUS (1957 TO DATE)
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

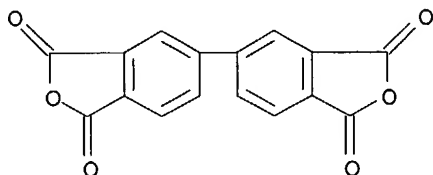
L22 ANSWER 18 OF 41 REGISTRY COPYRIGHT 2003 ACS
 RN 77272-92-5 REGISTRY
 CN [5,5'-Biisobenzofuran]-1,1',3,3'-tetrone, polymer with 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, polymer with [5,5'-biisobenzofuran]-1,1',3,3'-tetrone (9CI)
 OTHER NAMES:
 CN **3,3',4,4'-Biphenyltetracarboxylic dianhydride-o-dianisidine copolymer**

MF (C16 H6 O6 . C14 H16 N2 O2)x
CI PMS
PCT Polyamic acid, Polyamic acid formed, Polyimide, Polyimide formed
LC STN Files: CA, CAPLUS, USPATFULL

****RELATED POLYMERS AVAILABLE WITH POLYLINK****

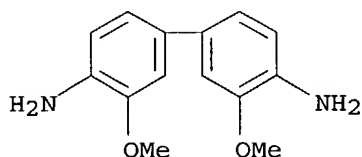
CM 1

CRN 2420-87-3
CMF C16 H6 O6



CM 2

CRN 119-90-4
CMF C14 H16 N2 O2



9 REFERENCES IN FILE CA (1957 TO DATE)
9 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 19 OF 41 REGISTRY COPYRIGHT 2003 ACS

RN 77238-79-0 REGISTRY

CN [5,5'-Biisobenzofuran]-1,1',3,3'-tetrone, polymer with
3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine and 4,4'-oxybis[benzenamine]
(9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Benzenamine, 4,4'-oxybis-, polymer with [5,5'-biisobenzofuran]-1,1',3,3'-
tetrone and 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine (9CI)

CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, polymer with
[5,5'-biisobenzofuran]-1,1',3,3'-tetrone and 4,4'-oxybis[benzenamine]
(9CI)

OTHER NAMES:

CN 3,3',4,4'-Biphenyltetracarboxylic acid dianhydride-4,4'-diaminodiphenyl
ether-3,3'-dimethoxybenzidine copolymer

CN 3,3',4,4'-Biphenyltetracarboxylic dianhydride-4,4'-diaminodiphenyl
ether-o-dianisidine copolymer

MF (C16 H6 O6 . C14 H16 N2 O2 . C12 H12 N2 O)x

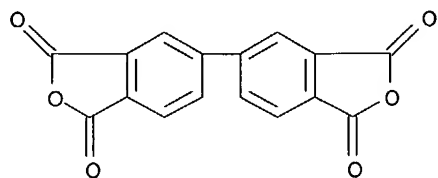
CI PMS

PCT Polyamic acid, Polyamic acid formed, Polyether, Polyimide, Polyimide
formed

LC STN Files: CA, CAPLUS

CM 1

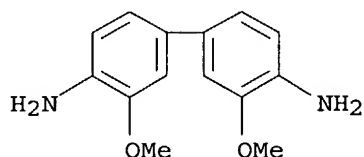
CRN 2420-87-3
CMF C16 H6 O6



CM 2

CRN 119-90-4

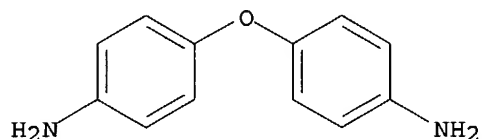
CMF C14 H16 N2 O2



CM 3

CRN 101-80-4

CMF C12 H12 N2 O



2 REFERENCES IN FILE CA (1957 TO DATE)

2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 20 OF 41 REGISTRY COPYRIGHT 2003 ACS

RN 72027-59-9 REGISTRY

CN **Dianisidine Orange 2915 (9CI)** (CA INDEX NAME)

MF Unspecified

CI MAN

LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

1 REFERENCES IN FILE CA (1957 TO DATE)

1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 21 OF 41 REGISTRY COPYRIGHT 2003 ACS

RN 65380-86-1 REGISTRY

CN Poly[iminocarbonyl(dicarboxyphenylene)carbonylimino(3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diyl)] (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 3,3'-Dimethoxy-4,4'-diaminobiphenyl-pyromellitic anhydride copolymer, sru

CN **o-Dianisidine-pyromellitic dianhydride copolymer, sru**

MF (C24 H18 N2 O8)n

CI IDS, PMS, MAN

PCT Manual registration

LC STN Files: CA, CAPLUS

****RELATED POLYMERS AVAILABLE WITH POLYLINK****

***** STRUCTURE DIAGRAM IS NOT AVAILABLE *****

3 REFERENCES IN FILE CA (1957 TO DATE)

3 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 22 OF 41 REGISTRY COPYRIGHT 2003 ACS

RN 60108-62-5 REGISTRY

CN [1,1'-Biphenyl]-4,4'-diamine, sulfate (1:1), mixt. with
ar-methoxybenzenamine sulfate (2:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Benzenamine, ar-methoxy-, sulfate (2:1), mixt. contg. (9CI)

OTHER NAMES:

CN **Benzidine sulfate-dianisidine sulfate mixt.**

MF C12 H12 N2 . C7 H9 N O . H2 O4 S . 1/2 H2 O4 S

CI MXS

LC STN Files: CA, CAPLUS, TOXCENTER

CM 1

CRN 60108-61-4

CMF C7 H9 N O . 1/2 H2 O4 S

CM 2

CRN 29191-52-4

CMF C7 H9 N O

CCI IDS



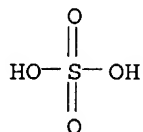
D1-NH₂

D1-O-Me

CM 3

CRN 7664-93-9

CMF H2 O4 S



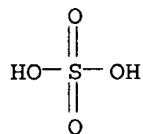
CM 4

CRN 531-86-2

CMF C12 H12 N2 . H2 O4 S

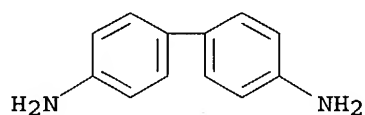
CM 5

CRN 7664-93-9
CMF H2 O4 S



CM 6

CRN 92-87-5
CMF C12 H12 N2



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 23 OF 41 REGISTRY COPYRIGHT 2003 ACS

RN 56436-30-7 REGISTRY

CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, sulfate (9CI) (CA INDEX NAME)

OTHER NAMES:

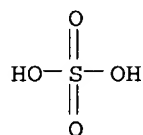
CN **Dianisidine sulfate**

MF C14 H16 N2 O2 . x H2 O4 S

LC STN Files: BEILSTEIN*, BIOSIS, CA, CAPLUS, NIOSHTIC, TOXCENTER
(*File contains numerically searchable property data)

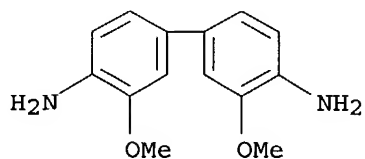
CM 1

CRN 7664-93-9
CMF H2 O4 S



CM 2

CRN 119-90-4
CMF C14 H16 N2 O2



3 REFERENCES IN FILE CA (1957 TO DATE)
3 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 24 OF 41 REGISTRY COPYRIGHT 2003 ACS
RN 56332-48-0 REGISTRY
CN Benzenamine, ar,ar,ar,ar-tetraazido-ar-methoxy- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN **Tetraazodianisidine**
MF C7 H5 N13 O
CI IDS
LC STN Files: CA, CAPLUS



D1-O-Me

D1-NH₂

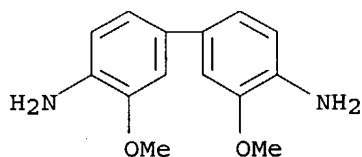
4 [D1-N₃]

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 25 OF 41 REGISTRY COPYRIGHT 2003 ACS
RN 55120-86-0 REGISTRY
CN 1,4-Benzenedicarbonyl dichloride, polymer with 1,4-benzenediamine and 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1,4-Benzenediamine, polymer with 1,3-benzenedicarbonyl dichloride and 3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine (9CI)
CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, polymer with 1,4-benzenediamine and 1,4-benzenedicarbonyl dichloride (9CI)
OTHER NAMES:
CN **o-Dianisidine-p-phenylenediamine-terephthaloyl dichloride copolymer**
MF (C14 H16 N2 O2 . C8 H4 Cl2 O2 . C6 H8 N2)x
CI PMS
PCT Polyamide, Polyamide formed
LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB

CM 1

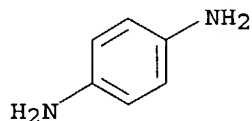
CRN 119-90-4
CMF C14 H16 N2 O2



CM 2

CRN 106-50-3

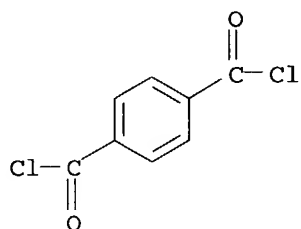
CMF C6 H8 N2



CM 3

CRN 100-20-9

CMF C8 H4 Cl2 O2



5 REFERENCES IN FILE CA (1957 TO DATE)

5 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 26 OF 41 REGISTRY COPYRIGHT 2003 ACS

RN 53632-08-9 REGISTRY

CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, conjugate diacid (9CI) (CA INDEX NAME)

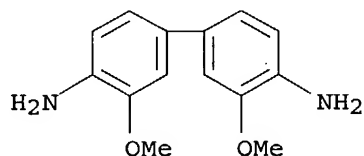
OTHER NAMES:

CN **o-Dianisidine conjugate diacid**

MF C14 H16 N2 O2 . 2 H

LC STN Files: CA, CAPLUS

CRN (119-90-4)



● 2 H⁺

3 REFERENCES IN FILE CA (1957 TO DATE)

3 REFERENCES IN FILE CAPLUS (1957 TO DATE)

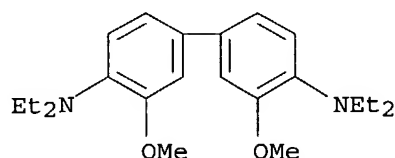
L22 ANSWER 27 OF 41 REGISTRY COPYRIGHT 2003 ACS

RN 41261-11-4 REGISTRY

CN [1,1'-Biphenyl]-4,4'-diamine, N,N,N',N'-tetraethyl-3,3'-dimethoxy- (9CI)
(CA INDEX NAME)

OTHER NAMES:

CN **N,N,N',N'-Tetraethyl-o-dianisidine**
 FS 3D CONCORD
 MF C22 H32 N2 O2
 LC STN Files: CA, CAPLUS



****PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT****

1 REFERENCES IN FILE CA (1957 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

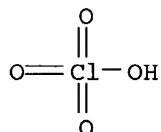
L22 ANSWER 28 OF 41 REGISTRY COPYRIGHT 2003 ACS
 RN 38758-68-8 REGISTRY
 CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, perchlorate (9CI) (CA INDEX NAME)

OTHER NAMES:

CN **o-Dianisidine perchlorate**
 MF C14 H16 N2 O2 . x Cl H O4
 LC STN Files: CA, CAPLUS

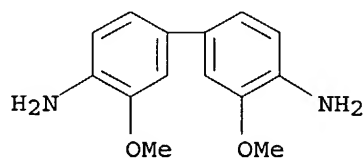
CM 1

CRN 7601-90-3
 CMF Cl H O4



CM 2

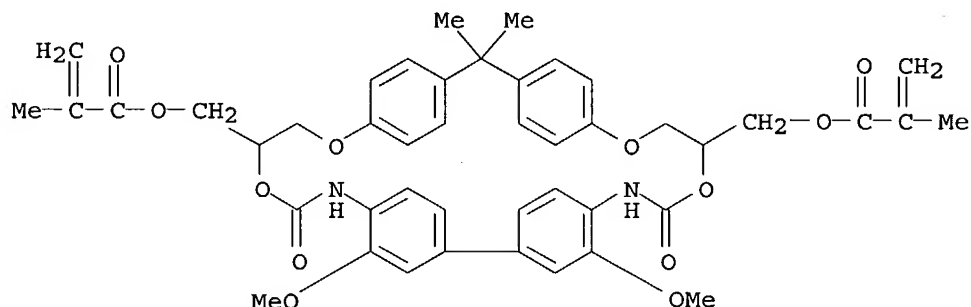
CRN 119-90-4
 CMF C14 H16 N2 O2



1 REFERENCES IN FILE CA (1957 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 29 OF 41 REGISTRY COPYRIGHT 2003 ACS
 RN 34921-95-4 REGISTRY
 CN 2-Propenoic acid, 2-methyl-, (4,28-dimethoxy-16,16-dimethyl-7,25-dioxo-8,11,21,24-tetraoxa-6,26-diazapentacyclo[25.2.2.22,5.212,15.217,20]heptatriaconta-2,4,12,14,17,19,27,29,30,32,34,36-dodecaene-9,23-

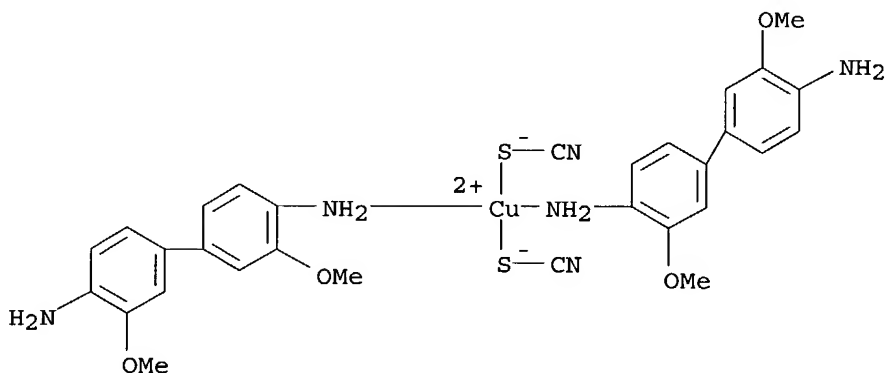
diyl)bis(methylene) ester (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN 8,11,21,24-Tetraoxa-6,26-diazapentacyclo[25.2.2.22,5.212,15.217,20]heptatriacontane, 2-propenoic acid deriv.
 OTHER NAMES:
 CN 2,2-Propane bis[3-(4-phenoxy)-1,2-hydroxypropane-1-methacrylate] adduct with dianisidine diisocyanate
 MF C45 H48 N2 O12
 LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 30 OF 41 REGISTRY COPYRIGHT 2003 ACS
 RN 33700-03-7 REGISTRY
 CN Copper, bis(3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine-N)bis(thiocyanato-S)- (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Copper, bis(3,3'-dimethoxybenzidine)bis(thiocyanato)- (8CI)
 CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, copper complex
 OTHER NAMES:
 CN Copper, bis(o-dianisidine)bis(thiocyanato)-
 MF C30 H32 Cu N6 O4 S2
 CI CCS
 LC STN Files: CA, CAPLUS



2 REFERENCES IN FILE CA (1957 TO DATE)
 2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 31 OF 41 REGISTRY COPYRIGHT 2003 ACS
 RN 32357-89-4 REGISTRY
 CN 4',4'''-Bi-o-benzanisidide (8CI) (CA INDEX NAME)

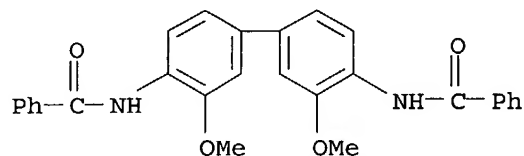
OTHER NAMES:

CN **N,N'-Dibenzoyl-o-dianisidine**

FS 3D CONCORD

MF C28 H24 N2 O4

LC STN Files: BEILSTEIN*, CA, CAPLUS, CHEMCATS
(*File contains numerically searchable property data)



****PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT****

1 REFERENCES IN FILE CA (1957 TO DATE)

1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 32 OF 41 REGISTRY COPYRIGHT 2003 ACS

RN 30284-41-4 REGISTRY

CN 1H,3H-Benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, polymer with
3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,2,4,5-Benzenetetracarboxylic 1,2:4,5-dianhydride, polymer with
3,3'-dimethoxybenzidine (8CI)

CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, polymer with
1H,3H-benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone (9CI)

OTHER NAMES:

CN 1,2,4,5-Benzenetetracarboxylic dianhydride-4,4'-diamino-3,3'-
dimethoxybiphenyl copolymer

CN 3,3'-Dimethoxy-4,4'-diaminobiphenyl-pyromellitic dianhydride copolymer

CN 3,3'-Dimethoxybenzidine-pyromellitic dianhydride copolymer

CN 4,4'-Diamino-3,3'-dimethoxybiphenyl-pyromellitic dianhydride copolymer

CN **o-Dianisidine-pyromellitic dianhydride copolymer**

MF (C14 H16 N2 O2 . C10 H2 O6)x

CI PMS

PCT Polyamic acid, Polyamic acid formed, Polyimide, Polyimide formed

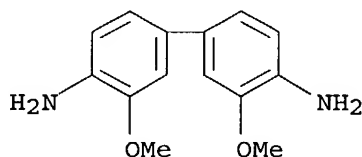
LC STN Files: CA, CAPLUS

****RELATED POLYMERS AVAILABLE WITH POLYLINK****

CM 1

CRN 119-90-4

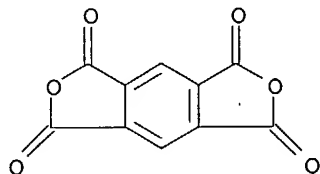
CMF C14 H16 N2 O2



CM 2

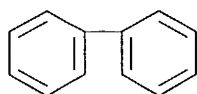
CRN 89-32-7

CMF C10 H2 O6



18 REFERENCES IN FILE CA (1957 TO DATE)
18 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 33 OF 41 REGISTRY COPYRIGHT 2003 ACS
RN 25619-70-9 REGISTRY
CN 1,1'-Biphenyl, ar,ar'-diisocyanato-ar,ar'-dimethoxy- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Isocyanic acid, ar,ar'-dimethoxybiphenylene ester (7CI, 8CI)
OTHER NAMES:
CN **Dianisidine diisocyanate**
MF C16 H12 N2 O4
CI IDS, COM
LC STN Files: CA, CAOLD, CAPLUS, CSCHEM, IFICDB, IFIPAT, IFIUDB, USPATFULL

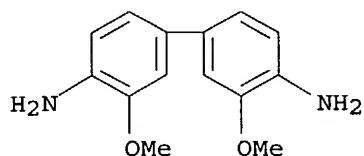


2 (D1-O-Me)

2 (D1-NCO)

19 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
19 REFERENCES IN FILE CAPLUS (1957 TO DATE)
4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

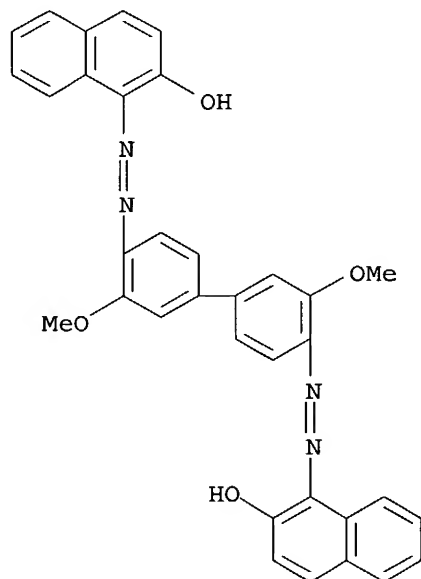
L22 ANSWER 34 OF 41 REGISTRY COPYRIGHT 2003 ACS
RN 20325-40-0 REGISTRY
CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-, dihydrochloride (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Benzidine, 3,3'-dimethoxy-, dihydrochloride (8CI)
OTHER NAMES:
CN 3,3'-Dimethoxybenzidine dihydrochloride
CN C.I. Disperse Black 6 dihydrochloride
CN **o-Dianisidine dihydrochloride**
MF C14 H16 N2 O2 . 2 Cl H
CI COM
LC STN Files: BEILSTEIN*, BIOSIS, CA, CAPLUS, CHEMCATS, CHEMLIST, CIN, CSCHEM, HSDB*, IFICDB, IFIPAT, IFIUDB, MSDS-OHS, NIOSHTIC, RTECS*, SPECINFO, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
CRN (119-90-4)



● 2 HCl

46 REFERENCES IN FILE CA (1957 TO DATE)
46 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 35 OF 41 REGISTRY COPYRIGHT 2003 ACS
RN 17681-65-1 REGISTRY
CN 2-Naphthalenol, 1,1'-[(3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2-Naphthol, 1,1'-[(3,3'-dimethoxy-4,4'-biphenylene)bis(azo)]di- (8CI)
OTHER NAMES:
CN **Dianisidine Blue B**
FS 3D CONCORD
MF C34 H26 N4 O4
LC STN Files: BEILSTEIN*, CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATFULL
(*File contains numerically searchable property data)

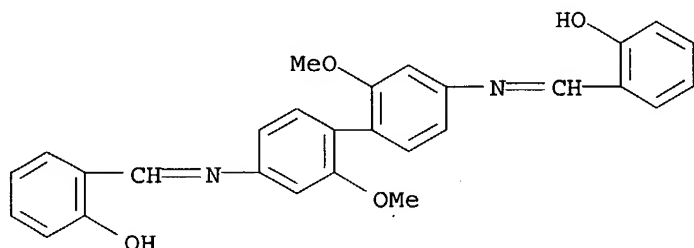


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
3 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 36 OF 41 REGISTRY COPYRIGHT 2003 ACS
RN 13463-15-5 REGISTRY
CN o-Cresol, .alpha.,.alpha.'-[(2,2'-dimethoxy-4,4'-

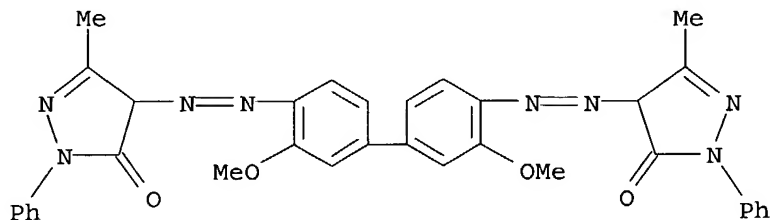
biphenylene)dinitrilo]di- (8CI) (CA INDEX NAME)
 OTHER NAMES:
 CN Dianisidine, disalicylidene-
 FS 3D CONCORD
 MF C28 H24 N2 O4
 LC STN Files: BEILSTEIN*, CA, CAPLUS
 (*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1957 TO DATE)
 2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 37 OF 41 REGISTRY COPYRIGHT 2003 ACS
 RN 6505-29-9 REGISTRY
 CN 3H-Pyrazol-3-one, 4,4'-[(3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[2,4-dihydro-5-methyl-2-phenyl- (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN 2-Pyrazolin-5-one, 4,4'-(3,3'-dimethoxy-4,4'-biphenylenebisazo)bis[3-methyl-1-phenyl- (6CI)
 CN C.I. Pigment Red 41 (8CI)
 OTHER NAMES:
 CN Bis(1-phenyl-3-methyl-5-oxo-4-pyrazolinyl)-4,4'-disazo-3,3'-dimethoxybiphenyl
 CN C.I. 21200
 CN Dianisidine Red
 CN Electra red
 CN Electra Red
 CN Electra Red (Yellowish) R-128
 CN Pigment Red BB
 CN Resamine Fast Red BB
 CN Rubber Fast Red BBE
 CN Vulcan Fast Red BBE
 FS 3D CONCORD
 DR 105375-28-8, 74415-32-0
 MF C34 H30 N8 O4
 LC STN Files: CA, CAOLD, CAPLUS, CHEMLIST, IFICDB, IFIPAT, IFIUDB, SPECINFO, USPATFULL
 Other Sources: EINECS**, NDSL**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

29 REFERENCES IN FILE CA (1957 TO DATE)
 2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 29 REFERENCES IN FILE CAPLUS (1957 TO DATE)
 2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L22 ANSWER 38 OF 41 REGISTRY COPYRIGHT 2003 ACS

RN 6505-28-8 REGISTRY

CN Butanamide, 2,2'-[(3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[3-oxo-N-phenyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN C.I. 21160

CN C.I. Pigment Orange 16

CN Dainichi Fast Orange GR

CN Diane Orange Y 25

CN **Dianisidine Orange 10406**

CN Florida orange

CN Isol Benzidine Orange GX

CN Isol Benzidine Orange R

CN Madras Toner X 1843

CN Pigment Orange 16

CN Pigment Orange 3A

CN Pigment Orange 3AY

CN Sanyo Fast Orange R

CN Seikafast Orange 2900

CN Symuler Fast Orange K

CN Symuler Fast Orange V

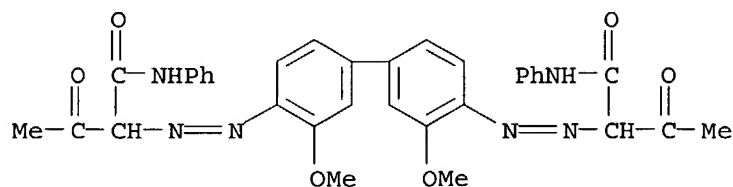
FS 3D CONCORD

MF C34 H32 N6 O6

LC STN Files: BIOBUSINESS, CA, CAPLUS, CHEMLIST, CIN, CSCHEM, IFICDB, IFIPAT, IFIUDB, MSDS-OHS, PROMT, TOXCENTER, USPATFULL

Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

56 REFERENCES IN FILE CA (1957 TO DATE)
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 56 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L22 ANSWER 39 OF 41 REGISTRY COPYRIGHT 2003 ACS

RN 5437-88-7 REGISTRY

CN 2-Naphthalenecarboxamide, 4,4'-[(3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[3-hydroxy-N-(2-methoxyphenyl)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN C.I. Pigment Blue 26 (7CI, 8CI)

OTHER NAMES:

CN C.I. 21185

CN Chromophyl Blue B-70

CN **Dianisidine blue**

DR 76412-94-7

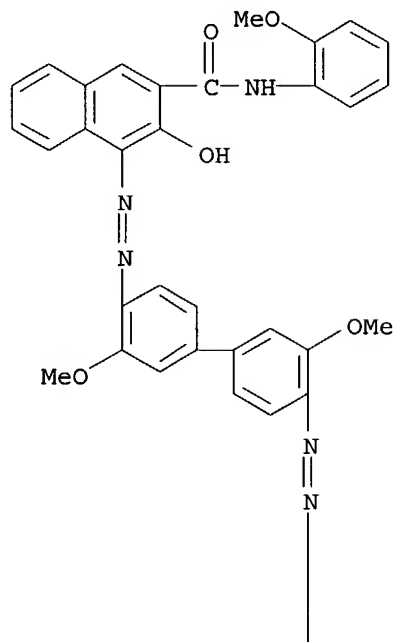
MF C50 H40 N6 O8

LC STN Files: CA, CAOLD, CAPLUS, CHEMLIST, IFICDB, IFIPAT, IFIUDB, USPATFULL

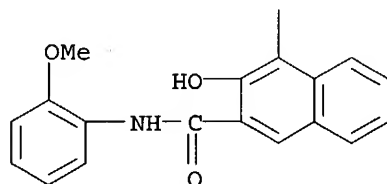
Other Sources: EINECS**, NDSL**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)

PAGE 1-A



PAGE 2-A



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

16 REFERENCES IN FILE CA (1957 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

16 REFERENCES IN FILE CAPLUS (1957 TO DATE)

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> s n carboxymethyl and glycine

4635400 N

53063 CARBOXYMETHYL

16145 N CARBOXYMETHYL

(N(W) CARBOXYMETHYL)

414547 GLYCINE

L23 7351 N CARBOXYMETHYL AND GLYCINE

=> s l23 and phenyl

8880747 PHENYL

L24 2193 L23 AND PHENYL

=> s n carboxymethyl and phenyl glycine

4635400 N

53063 CARBOXYMETHYL

16145 N CARBOXYMETHYL

(N(W) CARBOXYMETHYL)

8880747 PHENYL

414547 GLYCINE

1109 PHENYL GLYCINE

(PHENYL(W) GLYCINE)

L25 28 N CARBOXYMETHYL AND PHENYL GLYCINE

=> d 1-28

L25 ANSWER 1 OF 28 REGISTRY COPYRIGHT 2003 ACS

RN 318506-30-8 REGISTRY

CN Glycine, N-(carboxymethyl)-N-phenyl-, compd. with guanidine (1:2)
(9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Guanidine, compd. with N-(carboxymethyl)-N-phenylglycine (2:1)
(9CI)

MF C10 H11 N O4 . 2 C H5 N3

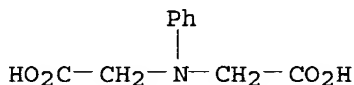
SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 1137-73-1

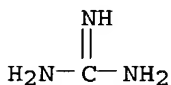
CMF C10 H11 N O4



CM 2

CRN 113-00-8

CMF C H5 N3



1 REFERENCES IN FILE CA (1957 TO DATE)

1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L25 ANSWER 2 OF 28 REGISTRY COPYRIGHT 2003 ACS

RN 207506-15-8 REGISTRY

CN Glycine, N-(carboxymethyl)-N-[4-[(5,6-dichloro-2-benzothiazolyl)azo]-3-sulphophenyl]- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 2-[2-(5,6-Dichlorobenzothiazolyl)azo]-5-[(N,N-dicarboxymethyl)amino]benzenesulfonic acid

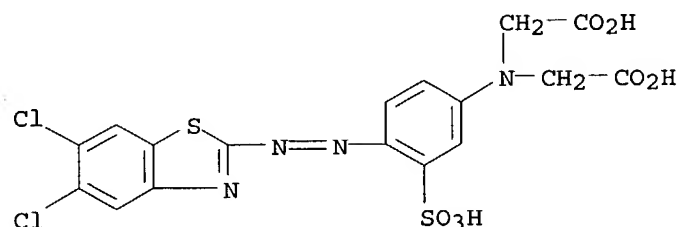
CN N-(Carboxymethyl)-N-[4-[(5,6-dichloro-2-benzothiazolyl)azo]-3-sulphophenyl]glycine

FS 3D CONCORD

MF C17 H12 Cl2 N4 O7 S2

SR CA

LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1957 TO DATE)

3 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L25 ANSWER 3 OF 28 REGISTRY COPYRIGHT 2003 ACS

RN 156075-02-4 REGISTRY

CN Glycine, N-(carboxymethyl)-N-[4-[(4-nitrophenyl)azo]phenyl]-, polymer with 2,6-bis[(trimethylsilyl)ethynyl]-1,4-benzenediamine (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,4-Benzenediamine, 2,6-bis[(trimethylsilyl)ethynyl]-, polymer with N-(carboxymethyl)-N-[4-[(4-nitrophenyl)azo]phenyl]glycine (9CI)

MF (C16 H24 N2 Si2 . C16 H14 N4 O6)x

CI PMS

PCT Polyacetylene, Polyamide, Polyamide formed, Polyamine

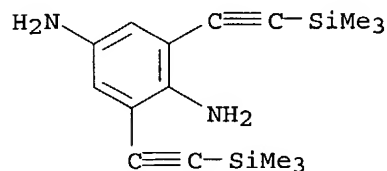
SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

CM 1

CRN 156075-01-3

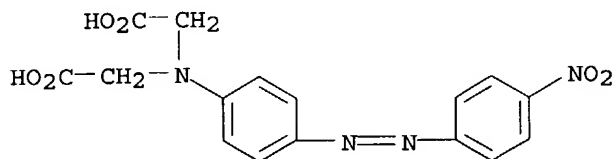
CMF C16 H24 N2 Si2



CM 2

CRN 141209-18-9

CMF C16 H14 N4 O6

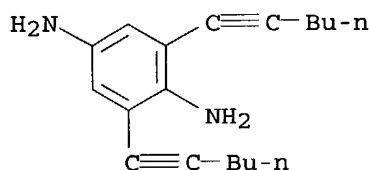


1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L25 ANSWER 4 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN 156075-00-2 REGISTRY
CN Glycine, N-(carboxymethyl)-N-[4-[(4-nitrophenyl)azo]phenyl]-, polymer with 2,6-di-1-hexynyl-1,4-benzenediamine (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1,4-Benzenediamine, 2,6-di-1-hexynyl-, polymer with N-(carboxymethyl)-N-[4-[(4-nitrophenyl)azo]phenyl]glycine (9CI)
MF (C18 H24 N2 . C16 H14 N4 O6)x
CI PMS
PCT Polyacetylene, Polyamide, Polyamide formed, Polyamine
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

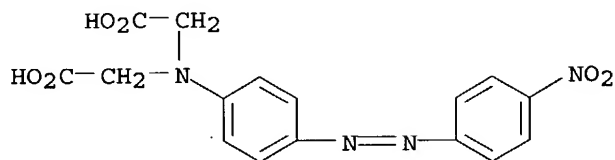
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CRN 156074-99-6
CMF C18 H24 N2



CM 2

CRN 141209-18-9
CMF C16 H14 N4 O6



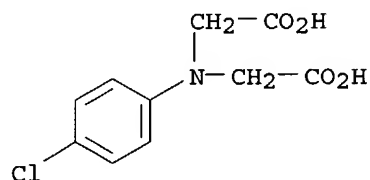
1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L25 ANSWER 5 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN 147318-35-2 REGISTRY
CN Glycine, N-(carboxymethyl)-N-(4-chlorophenyl)-, compd. with ethanol (1:1), monohydrate (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Ethanol, compd. with N-(carboxymethyl)-N-(4-chlorophenyl)glycine (1:1), monohydrate (9CI)
MF C10 H10 Cl N O4 . C2 H6 O . H2 O

SR CA
LC STN Files: CA, CAPLUS

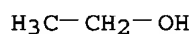
CM 1

CRN 30042-69-4
CMF C10 H10 Cl N O4



CM 2

CRN 64-17-5
CMF C2 H6 O



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L25 ANSWER 6 OF 28 REGISTRY COPYRIGHT 2003 ACS

RN 141209-19-0 REGISTRY

CN Glycine, N-(carboxymethyl)-N-[4-[(4-nitrophenyl)azo]phenyl]-, polymer with 2,6-di-1-octynyl-1,4-benzenediamine (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,4-Benzenediamine, 2,6-di-1-octynyl-, polymer with N-(carboxymethyl)-N-[4-[(4-nitrophenyl)azo]phenyl]glycine (9CI)

MF (C22 H32 N2 . C16 H14 N4 O6)x

CI PMS

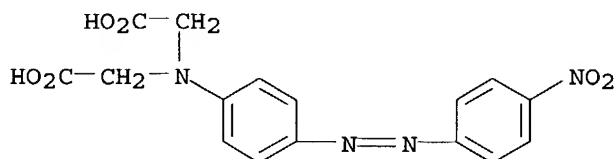
PCT Polyacetylene, Polyamide, Polyamide formed, Polyamine

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

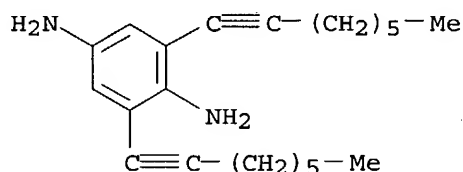
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CRN 141209-18-9
CMF C16 H14 N4 O6



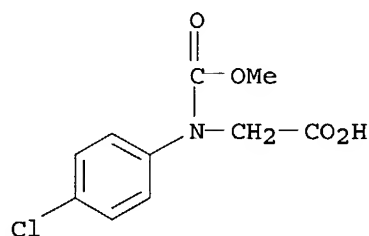
CM 2

CRN 126297-22-1
CMF C22 H32 N2



2 REFERENCES IN FILE CA (1957 TO DATE)
2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L25 ANSWER 7 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN 111530-66-6 REGISTRY
CN Glycine, N-(4-chlorophenyl)-N-(methoxycarbonyl)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Carbanilic acid, N-(carboxymethyl)-p-chloro-, 1-methyl ester (6CI)
OTHER NAMES:
CN N-Methoxycarbonyl-N-4-chlorophenylglycine
FS 3D CONCORD
MF C10 H10 Cl N O4
CI COM
SR CAOLD
LC STN Files: CA, CAOLD, CAPLUS, USPATFULL



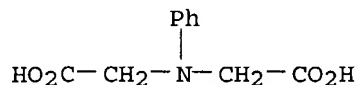
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L25 ANSWER 8 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN 62739-22-4 REGISTRY
CN Glycine, N-(carboxymethyl)-N-phenyl-, polymer with formaldehyde and phenol (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Formaldehyde, polymer with N-(carboxymethyl)-N-phenylglycine and phenol (9CI)
CN Phenol, polymer with N-(carboxymethyl)-N-phenylglycine and formaldehyde (9CI)
OTHER NAMES:
CN Anilinediacetic acid-formaldehyde-phenol copolymer
CN Formaldehyde-phenol-N-phenyliminodiacetic acid copolymer
MF (C10 H11 N O4 . C6 H6 O . C H2 O)x
CI PMS
PCT Phenolic resin, Polyother
LC STN Files: CA, CAPLUS

CM 1

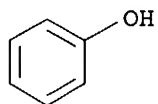
CRN 1137-73-1
CMF C10 H11 N O4



CM 2

CRN 108-95-2

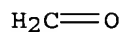
CMF C6 H6 O



CM 3

CRN 50-00-0

CMF C H2 O



5 REFERENCES IN FILE CA (1957 TO DATE)

5 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L25 ANSWER 9 OF 28 REGISTRY COPYRIGHT 2003 ACS

RN 50658-97-4 REGISTRY

CN Glycine, N-(carboxymethyl)-N-(2-hydroxyphenyl)-, polymer with 1,3-benzenediol and formaldehyde (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,3-Benzenediol, polymer with N-(carboxymethyl)-N-(2-hydroxyphenyl)glycine and formaldehyde (9CI)

CN Formaldehyde, polymer with 1,3-benzenediol and N-(carboxymethyl)-N-(2-hydroxyphenyl)glycine (9CI)

OTHER NAMES:

CN Formaldehyde-o-hydroxyphenyliminodiacetic acid-resorcinol polymer

MF (C10 H11 N O5 . C6 H6 O2 . C H2 O)x

CI PMS

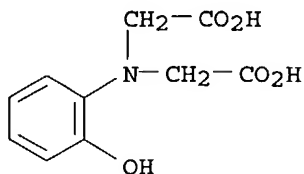
PCT Phenolic resin, Polyamine, Polyester, Polyester formed

LC STN Files: CA, CAPLUS

CM 1

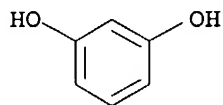
CRN 6243-03-4

CMF C10 H11 N O5



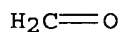
CM 2

CRN 108-46-3
CMF C6 H6 O2



CM 3

CRN 50-00-0
CMF C H2 O

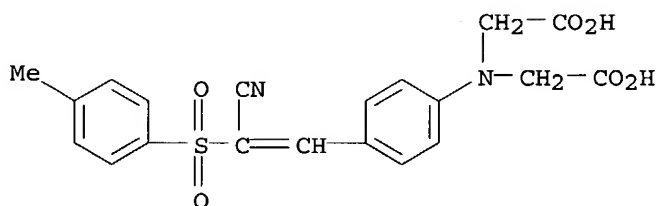


1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L25 ANSWER 10 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN 39719-75-0 REGISTRY
CN Glycine, N-(carboxymethyl)-N-[4-[2-cyano-2-[(4-methylphenyl)sulfonyl]ethenyl]phenyl]-, compd. with piperidine (1:1) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Piperidine, compd. with N-(carboxymethyl)-N-[4-[2-cyano-2-[(4-methylphenyl)sulfonyl]ethenyl]phenyl]glycine (1:1) (9CI)
MF C20 H18 N2 O6 S . C5 H11 N
LC STN Files: BEILSTEIN*, CA, CAPLUS
(*File contains numerically searchable property data)

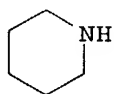
CM 1

CRN 47634-00-4
CMF C20 H18 N2 O6 S



CM 2

CRN 110-89-4
CMF C5 H11 N



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L25 ANSWER 11 OF 28 REGISTRY COPYRIGHT 2003 ACS

RN 38330-22-2 REGISTRY

CN Glycine, N-(carboxymethyl)-N-[4-[(1,3-diethyltetrahydro-4,6-dioxo-2-thioxo-5(2H)-pyrimidinylidene)methyl]phenyl]-, compd. with piperidine (1:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Piperidine, compd. with N-(carboxymethyl)-N-[4-[(1,3-diethyltetrahydro-4,6-dioxo-2-thioxo-5(2H)-pyrimidinylidene)methyl]phenyl]glycine (1:1) (9CI)

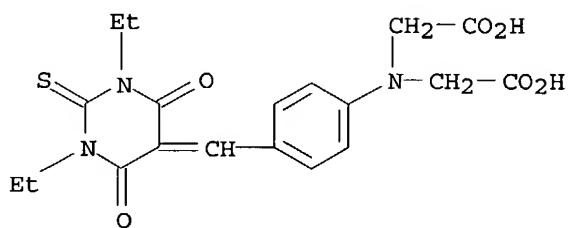
MF C19 H21 N3 O6 S . C5 H11 N

LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB

CM 1

CRN 47623-90-5

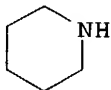
CMF C19 H21 N3 O6 S



CM 2

CRN 110-89-4

CMF C5 H11 N



1 REFERENCES IN FILE CA (1957 TO DATE)

1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L25 ANSWER 12 OF 28 REGISTRY COPYRIGHT 2003 ACS

RN 37424-16-1 REGISTRY

CN Glycine, N-(carboxymethyl)-N-[4-[2-cyano-3-(2-naphthalenylamino)-3-oxo-1-propenyl]phenyl]-, compd. with piperidine (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Piperidine, compd. with N-(carboxymethyl)-N-[4-[2-cyano-3-(2-naphthalenylamino)-3-oxo-1-propenyl]phenyl]glycine (9CI)

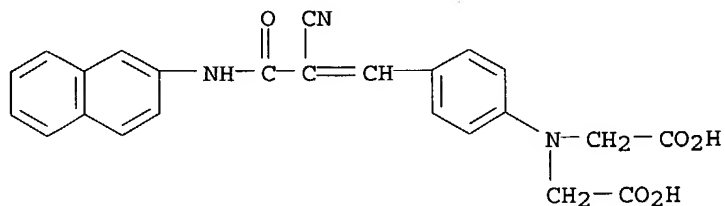
MF C24 H19 N3 O5 . x C5 H11 N

LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATFULL

CM 1

CRN 47709-95-5

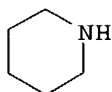
CMF C24 H19 N3 O5



CM 2

CRN 110-89-4

CMF C5 H11 N



1 REFERENCES IN FILE CA (1957 TO DATE)

1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L25 ANSWER 13 OF 28 REGISTRY COPYRIGHT 2003 ACS

RN 37424-13-8 REGISTRY

CN Glycine, N-(carboxymethyl)-N-[4-(2,2-dicyanoethenyl)phenyl]-, compd. with piperidine (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Piperidine, compd. with N-(carboxymethyl)-N-[4-(2,2-dicyanoethenyl)phenyl]glycine (9CI)

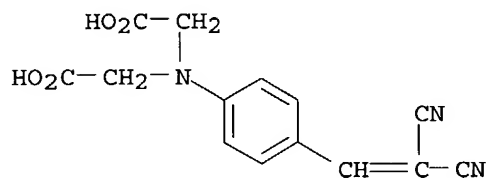
MF C14 H11 N3 O4 . x C5 H11 N

LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATFULL

CM 1

CRN 47161-19-3

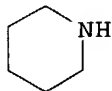
CMF C14 H11 N3 O4



CM 2

CRN 110-89-4

CMF C5 H11 N



1 REFERENCES IN FILE CA (1957 TO DATE)

1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

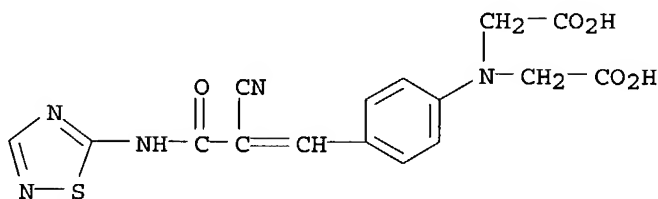
L25 ANSWER 14 OF 28 REGISTRY COPYRIGHT 2003 ACS
 RN 37403-37-5 REGISTRY
 CN Glycine, N-(carboxymethyl)-N-[4-[2-cyano-3-oxo-3-(1,2,4-thiadiazol-5-ylamino)-1-propenyl]phenyl]-, compd. with piperidine (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,2,4-Thiadiazole, glycine deriv.
 CN Piperidine, compd. with N-(carboxymethyl)-N-[4-[2-cyano-3-oxo-3-(1,2,4-thiadiazol-5-ylamino)-1-propenyl]phenyl]glycine (9CI)
 MF C16 H13 N5 O5 S . x C5 H11 N
 LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATFULL

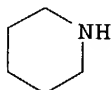
CM 1

CRN 47551-25-7
 CMF C16 H13 N5 O5 S



CM 2

CRN 110-89-4
 CMF C5 H11 N



1 REFERENCES IN FILE CA (1957 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

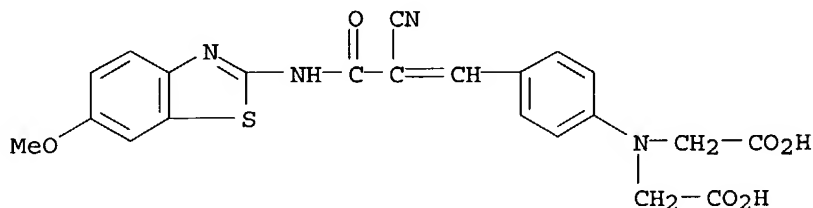
L25 ANSWER 15 OF 28 REGISTRY COPYRIGHT 2003 ACS
 RN 37403-35-3 REGISTRY
 CN Glycine, N-(carboxymethyl)-N-[4-[2-cyano-3-[(6-methoxy-2-benzothiazolyl)amino]-3-oxo-1-propenyl]phenyl]-, compd. with piperidine (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Piperidine, compd. with N-(carboxymethyl)-N-[4-[2-cyano-3-[(6-methoxy-2-benzothiazolyl)amino]-3-oxo-1-propenyl]phenyl]glycine (9CI)
 MF C22 H18 N4 O6 S . x C5 H11 N
 LC STN Files: BEILSTEIN*, CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATFULL
 (*File contains numerically searchable property data)

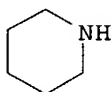
CM 1

CRN 47733-93-7
 CMF C22 H18 N4 O6 S



CM 2

CRN 110-89-4
CMF C5 H11 N



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L25 ANSWER 16 OF 28 REGISTRY COPYRIGHT 2003 ACS

RN 37403-28-4 REGISTRY

CN Glycine, N-(carboxymethyl)-N-[4-[2-cyano-3-(3,4-dihydro-1(2H)-quinolinyl)-3-oxo-1-propenyl]phenyl]-, compd. with piperidine (9CI)
(CA INDEX NAME)

OTHER CA INDEX NAMES:

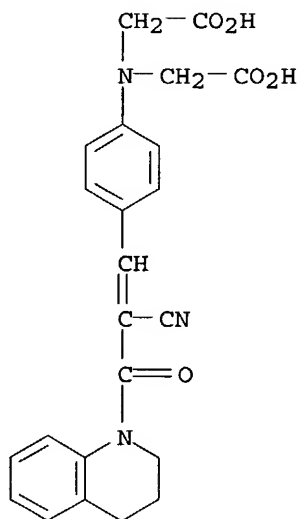
CN Piperidine, compd. with N-(carboxymethyl)-N-[4-[2-cyano-3-(3,4-dihydro-1(2H)-quinolinyl)-3-oxo-1-propenyl]phenyl]glycine (9CI)

MF C23 H21 N3 O5 . x C5 H11 N

LC STN Files: BEILSTEIN*, CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATFULL
(*File contains numerically searchable property data)

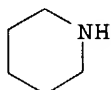
CM 1

CRN 47682-59-7
CMF C23 H21 N3 O5



CM 2

CRN 110-89-4
CMF C5 H11 N



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L25 ANSWER 17 OF 28 REGISTRY COPYRIGHT 2003 ACS

RN 37401-40-4 REGISTRY

CN Glycine, N-(carboxymethyl)-N-[4-[2-cyano-3-[(2-hydroxyethyl)amino]-3-oxo-1-propenyl]phenyl]-, compd. with piperidine (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

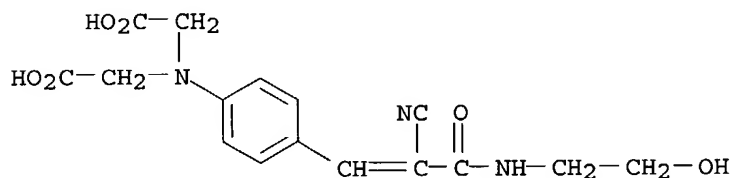
CN Piperidine, compd. with N-(carboxymethyl)-N-[4-[2-cyano-3-[(2-hydroxyethyl)amino]-3-oxo-1-propenyl]phenyl]glycine (9CI)

MF C16 H17 N3 O6 . x C5 H11 N

LC STN Files: BEILSTEIN*, CA, CAPLUS, IFICDB, IFIPAT, IFIUIDB, USPATFULL
(*File contains numerically searchable property data)

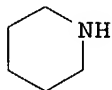
CM 1

CRN 47454-14-8
CMF C16 H17 N3 O6



CM 2

CRN 110-89-4
CMF C5 H11 N



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L25 ANSWER 18 OF 28 REGISTRY COPYRIGHT 2003 ACS

RN 37401-38-0 REGISTRY

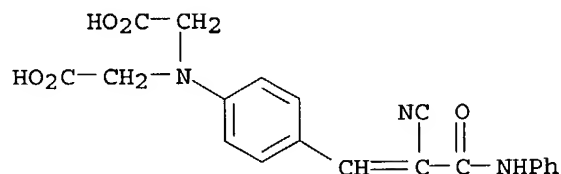
CN Glycine, N-(carboxymethyl)-N-[4-[2-cyano-3-oxo-3-(phenylamino)-1-propenyl]phenyl]-, compd. with piperidine (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Piperidine, compd. with N-(carboxymethyl)-N-[4-[2-cyano-3-oxo-3-(phenylamino)-1-propenyl]phenyl]glycine (9CI)
 MF C20 H17 N3 O5 . x C5 H11 N
 LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATFULL

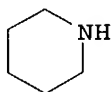
CM 1

CRN 47588-86-3
 CMF C20 H17 N3 O5



CM 2

CRN 110-89-4
 CMF C5 H11 N



1 REFERENCES IN FILE CA (1957 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L25 ANSWER 19 OF 28 REGISTRY COPYRIGHT 2003 ACS
 RN 37401-27-7 REGISTRY

CN Glycine, N-(carboxymethyl)-N-[4-[2-cyano-3-[[4-(6-methyl-2-benzothiazolyl)phenyl]amino]-3-oxo-1-propenyl]phenyl]-, compd. with piperidine (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

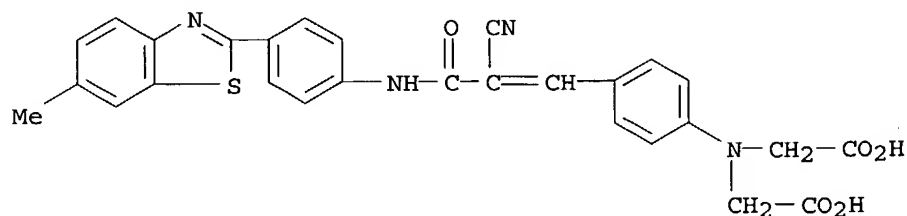
CN Piperidine, compd. with N-(carboxymethyl)-N-[4-[2-cyano-3-[[4-(6-methyl-2-benzothiazolyl)phenyl]amino]-3-oxo-1-propenyl]phenyl]glycine (9CI)

MF C28 H22 N4 O5 S . x C5 H11 N

LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATFULL

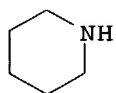
CM 1

CRN 47802-17-5
 CMF C28 H22 N4 O5 S



CM 2

CRN 110-89-4
CMF C5 H11 N



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L25 ANSWER 20 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN 37401-26-6 REGISTRY
CN Glycine, N-(carboxymethyl)-N-[4-[2-cyano-3-(1-naphthalenylamino)-3-oxo-1-propenyl]phenyl]-, compd. with piperidine (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

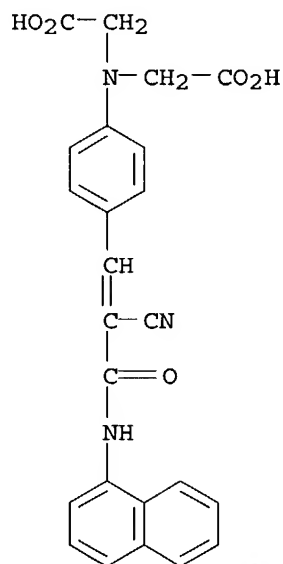
CN Piperidine, compd. with N-(carboxymethyl)-N-[4-[2-cyano-3-(1-naphthalenylamino)-3-oxo-1-propenyl]phenyl]glycine (9CI)

MF C24 H19 N3 O5 . x C5 H11 N

LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATFULL

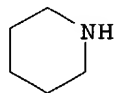
CM 1

CRN 47706-89-8
CMF C24 H19 N3 O5



CM 2

CRN 110-89-4
CMF C5 H11 N



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L25 ANSWER 21 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN 37401-22-2 REGISTRY
CN Glycine, N-(carboxymethyl)-N-[4-(2-cyano-3-oxo-3-phenyl-1-propenyl)phenyl]-, compd. with piperidine (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Piperidine, compd. with N-(carboxymethyl)-N-[4-(2-cyano-3-oxo-3-phenyl-1-propenyl)phenyl]glycine (9CI)

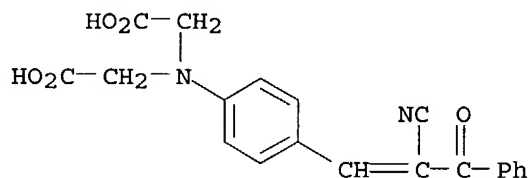
MF C20 H16 N2 O5 . x C5 H11 N

LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATFULL

CM 1

CRN 47553-28-6

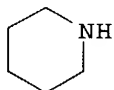
CMF C20 H16 N2 O5



CM 2

CRN 110-89-4

CMF C5 H11 N



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L25 ANSWER 22 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN 37400-98-9 REGISTRY
CN Glycine, N-(carboxymethyl)-N-[4-[2-cyano-3-[(ethoxycarbonyl)amino]-3-oxo-1-propenyl]phenyl]-, compd. with piperidine (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Piperidine, compd. with N-(carboxymethyl)-N-[4-[2-cyano-3-[(ethoxycarbonyl)amino]-3-oxo-1-propenyl]phenyl]glycine (9CI)

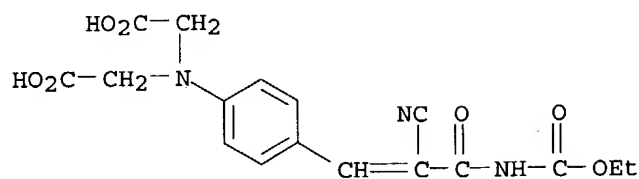
MF C17 H17 N3 O7 . x C5 H11 N

LC STN Files: BEILSTEIN*, CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATFULL
(*File contains numerically searchable property data)

CM 1

CRN 47551-26-8

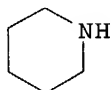
CMF C17 H17 N3 O7



CM 2

CRN 110-89-4

CMF C5 H11 N



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L25 ANSWER 23 OF 28 REGISTRY COPYRIGHT 2003 ACS

RN 37400-97-8 REGISTRY

CN Glycine, N-(carboxymethyl)-N-[4-[2-cyano-2-(methylsulfonyl)ethenyl]phenyl]-, compd. with piperidine (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Piperidine, compd. with N-(carboxymethyl)-N-[4-[2-cyano-2-(methylsulfonyl)ethenyl]phenyl]glycine (9CI)

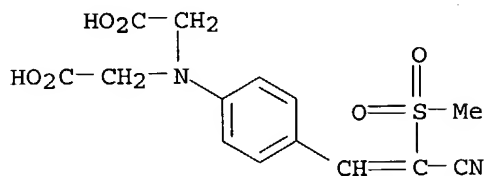
MF C14 H14 N2 O6 S . x C5 H11 N

LC STN Files: BEILSTEIN*, CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATFULL
(*File contains numerically searchable property data)

CM 1

CRN 50580-14-8

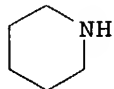
CMF C14 H14 N2 O6 S



CM 2

CRN 110-89-4

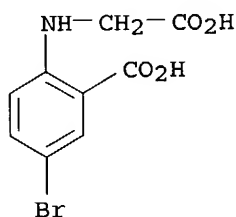
CMF C5 H11 N



1 REFERENCES IN FILE CA (1957 TO DATE)

1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

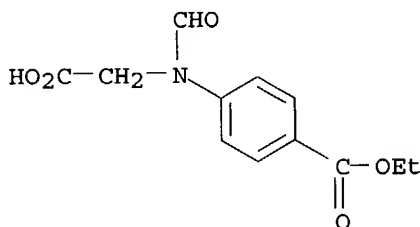
L25 ANSWER 24 OF 28 REGISTRY COPYRIGHT 2003 ACS
 RN 32253-75-1 REGISTRY
 CN Benzoic acid, 5-bromo-2-[(carboxymethyl)amino]- (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Anthranilic acid, 5-bromo-N-(carboxymethyl)- (8CI)
 OTHER NAMES:
 CN 5-Bromo-2-carboxyphenylglycine
 CN 5-Bromo-N-(carboxymethyl)anthranilic acid
 FS 3D CONCORD
 MF C9 H8 Br N O4
 LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, CHEMCATS, CHEMLIST,
 MSDS-OHS
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**
 (**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

6 REFERENCES IN FILE CA (1957 TO DATE)
 6 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L25 ANSWER 25 OF 28 REGISTRY COPYRIGHT 2003 ACS
 RN 17399-51-8 REGISTRY
 CN Benzoic acid, p-[N-(carboxymethyl)formamido]-, ethyl ester (8CI)
 (CA INDEX NAME)
 OTHER NAMES:
 CN N-Formyl-N-(4-carbethoxyphenyl)glycine
 FS 3D CONCORD
 MF C12 H13 N O5
 LC STN Files: BEILSTEIN*, CA, CAPLUS
 (*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

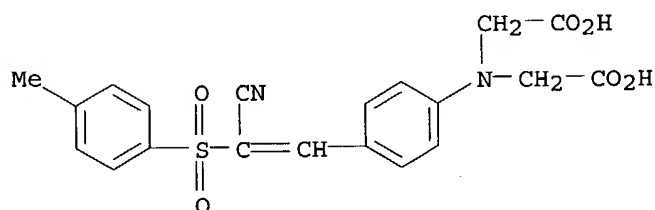
L25 ANSWER 26 OF 28 REGISTRY COPYRIGHT 2003 ACS
 RN 16093-04-2 REGISTRY

CN Glycine, N-(carboxymethyl)-N-[4-[2-cyano-2-[(4-methylphenyl)sulfonyl]ethenyl]phenyl]-, compd. with piperidine (9CI)
(CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Acetic acid, [[p-[2-cyano-2-(p-tolylsulfonyl)vinyl]phenyl]imino]di-,
compd. with piperidine (8CI)
CN Piperidine, compd. with N-(carboxymethyl)-N-[4-[2-cyano-2-[(4-methylphenyl)sulfonyl]ethenyl]phenyl]glycine (9CI)
CN Piperidine, compd. with [[p-[2-cyano-2-(p-tolylsulfonyl)vinyl]phenyl]imino]
diacetic acid
CN Piperidine, [[p-[2-cyano-2-(p-tolylsulfonyl)vinyl]phenyl]imino]diacetate
(8CI)
MF C20 H18 N2 O6 S . x C5 H11 N
LC STN Files: BEILSTEIN*, CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATFULL
(*File contains numerically searchable property data)

CM 1

CRN 47634-00-4

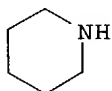
CMF C20 H18 N2 O6 S



CM 2

CRN 110-89-4

CMF C5 H11 N



2 REFERENCES IN FILE CA (1957 TO DATE)
2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L25 ANSWER 27 OF 28 REGISTRY COPYRIGHT 2003 ACS

RN 1147-65-5 REGISTRY

CN Benzoic acid, 2-[bis(carboxymethyl)amino]- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Acetic acid, [(o-carboxyphenyl)imino]di- (6CI, 7CI)

CN Anthranilic acid, N,N-bis(carboxymethyl)- (8CI)

OTHER NAMES:

CN ANDA

CN Anthranil-N,N-diacetic acid

CN Anthranildiacetic acid

CN Anthranilic-N,N-diacetic acid

CN N,N-Bis(carboxymethyl)anthranilic acid

CN N-(o-Carboxyphenyl)iminodiacetic acid

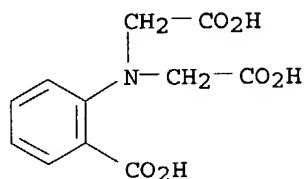
CN N-Carboxymethyl-N-(2-carboxyphenyl)glycine

MF C11 H11 N O6

CI COM

LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CHEMCATS, CSCHEM, GMELIN*,
TOXCENTER, USPAT2, USPATFULL

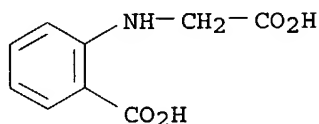
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

98 REFERENCES IN FILE CA (1957 TO DATE)
17 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
98 REFERENCES IN FILE CAPLUS (1957 TO DATE)
20 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L25 ANSWER 28 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN 612-42-0 REGISTRY
CN Benzoic acid, 2-[(carboxymethyl)amino]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Anthranilic acid, N-(carboxymethyl)- (6CI, 7CI, 8CI)
OTHER NAMES:
CN N-(2-Carboxyphenyl)glycine
CN N-(Carboxymethyl)anthranilic acid
FS 3D CONCORD
MF C9 H9 N O4
CI COM
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHM, GMELIN*, HODOC*, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

44 REFERENCES IN FILE CA (1957 TO DATE)
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
44 REFERENCES IN FILE CAPLUS (1957 TO DATE)
9 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d his

(FILE 'HOME' ENTERED AT 16:12:39 ON 30 APR 2003)

FILE 'REGISTRY' ENTERED AT 16:12:51 ON 30 APR 2003

L1 12 S CARBOXYPHENOXYACETIC ACID
L2 1 S HYDROQUINONE O O DIACETIC ACID
L3 0 S CAROXY 0 ANISIC ACID
L4 0 S CARBOXY 0 ANISIC ACID
L5 190 S CARBOXY AND ANISIC ACID
L6 2719 S ANISIC ACID

L7 1 S ANISIC ACID/CN
 L8 190 S CARBOXY AND ANISIC ACID
 L9 4 S RESORCINOL AND DIACETIC ACID
 L10 28918 S NAPHTHALENECARBOXYLIC ACID
 L11 6 S CARBOXYMETHYL AND THIO AND NAPHTHALENECARBOXYLIC ACID
 L12 0 S CARBOXYMETHYLTHIO ADJ BENZOIC ACID
 L13 18 S CARBOXYMETHYLTHIO AND BENZO?

FILE 'CA' ENTERED AT 16:23:05 ON 30 APR 2003
 S 101714-12-9/REG#

L14 FILE 'REGISTRY' ENTERED AT 16:23:09 ON 30 APR 2003
 1 S 101714-12-9/RN

L15 FILE 'CA' ENTERED AT 16:23:09 ON 30 APR 2003
 2 S L14
 L16 62628 S PHOTO? AND (IR OR INFRARED OR INFRA RED)
 L17 34 S L16 AND CARBOXYMETHYL

FILE 'REGISTRY' ENTERED AT 16:26:23 ON 30 APR 2003
 L18 0 S DIANISIDINE AND N AND TETRAACETIC ACID
 L19 0 S DIANISIDINE AND TETRAACETIC ACID
 L20 0 S DIANISIDINE AND ACETIC ACID
 L21 10 S DIANISIDINE AND ACID
 L22 41 S DIANISIDINE
 L23 7351 S N CARBOXYMETHYL AND GLYCINE
 L24 2193 S L23 AND PHENYL
 L25 28 S N CARBOXYMETHYL AND PHENYL GLYCINE

=> s 1147-65-5
 L26 1 1147-65-5
 (1147-65-5/RN)

| | | |
|--|------------------|---------------|
| => file ca | | |
| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
| FULL ESTIMATED COST | 233.34 | 494.49 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
| CA SUBSCRIBER PRICE | 0.00 | -1.86 |

FILE 'CA' ENTERED AT 16:44:05 ON 30 APR 2003
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FILE COVERS 1907 - 24 Apr 2003 VOL 138 ISS 18
 FILE LAST UPDATED: 24 Apr 2003 (20030424/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 126

L27 98 L26

=> s 127 and photo?

1143616 PHOTO?

L28 25 L27 AND PHOTO?

=> s 128 and (ir or infrared or infra red)

492857 IR

221359 INFRARED

3776 INFRA

326624 RED

3341 INFRA RED

(INFRA(W)RED)

L29 1 L28 AND (IR OR INFRARED OR INFRA RED)

=> d

L29 ANSWER 1 OF 1 CA COPYRIGHT 2003 ACS

AN 121:145177 CA

TI Processing of silver halide color **photographic** material

IN Abe, Akira; Seki, Hiroyuki; Okada, Hisashi; Inaba, Tadashi

PA Fuji Photo Film Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 55 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 05307251 | A2 | 19931119 | JP 1992-134535 | 19920428 |
| | US 5350668 | A | 19940927 | US 1993-53198 | 19930428 |
| PRAI | JP 1992-134535 | | 19920428 | | |

=> d all

L29 ANSWER 1 OF 1 CA COPYRIGHT 2003 ACS

AN 121:145177 CA

TI Processing of silver halide color **photographic** material

IN Abe, Akira; Seki, Hiroyuki; Okada, Hisashi; Inaba, Tadashi

PA Fuji Photo Film Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 55 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03C007-42

ICS G03C001-035; G03C001-43

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 05307251 | A2 | 19931119 | JP 1992-134535 | 19920428 |
| | US 5350668 | A | 19940927 | US 1993-53198 | 19930428 |
| PRAI | JP 1992-134535 | | 19920428 | | |

AB In processing a **photog.** material having on its support .gtoreq.1 Ag halide emulsion layer by imagewise exposing and treating with a processing soln. possessing bleaching ability, the emulsion has plate AgBr(I) grains of aspect ratio .gtoreq.3, occupying .gtoreq.50 % of whole project area of Ag halide grains, and the processing soln. contains 0.01-0.17 mol/L Ir(II) o-carboxy-N,N-dimethylcarboxyaniline complex salt for example as bleaching agent. The processing with low bleaching agent content can accomplish desilvering well, and is kind to environment.

ST photog processing bleaching agent
 IT Photographic emulsions
 (plate silver bromide(iodide) grain specified)
 IT Photographic processing
 (with small amt. of bleaching agent)
 IT 1147-65-5D, iron complexes of 7439-89-6D, Iron, complexes with
 carboxyalkylamines 21454-02-4D, iron complexes of 26239-55-4D, iron
 complexes of 41575-11-5D, iron complexes of 101986-57-6D, iron
 complexes of 148063-49-4D, iron complexes of 148063-50-7D, iron
 complexes of
 RL: USES (Uses)
 (bleaching agent, for photog. processing)

=> d his

(FILE 'HOME' ENTERED AT 16:12:39 ON 30 APR 2003)

FILE 'REGISTRY' ENTERED AT 16:12:51 ON 30 APR 2003

L1 12 S CARBOXYPHENOXYACETIC ACID
 L2 1 S HYDROQUINONE O O DIACETIC ACID
 L3 0 S CAROXY O ANISIC ACID
 L4 0 S CARBOXY O ANISIC ACID
 L5 190 S CARBOXY AND ANISIC ACID
 L6 2719 S ANISIC ACID
 L7 1 S ANISIC ACID/CN
 L8 190 S CARBOXY AND ANISIC ACID
 L9 4 S RESORCINOL AND DIACETIC ACID
 L10 28918 S NAPHTHALENECARBOXYLIC ACID
 L11 6 S CARBOXYMETHYL AND THIO AND NAPHTHALENECARBOXYLIC ACID
 L12 0 S CARBOXYMETHYLTHIO ADJ BENZOIC ACID
 L13 18 S CARBOXYMETHYLTHIO AND BENZO?

FILE 'CA' ENTERED AT 16:23:05 ON 30 APR 2003
 S 101714-12-9/REG#

FILE 'REGISTRY' ENTERED AT 16:23:09 ON 30 APR 2003

L14 1 S 101714-12-9/RN

FILE 'CA' ENTERED AT 16:23:09 ON 30 APR 2003

L15 2 S L14
 L16 62628 S PHOTO? AND (IR OR INFRARED OR INFRA RED)
 L17 34 S L16 AND CARBOXYMETHYL

FILE 'REGISTRY' ENTERED AT 16:26:23 ON 30 APR 2003

L18 0 S DIANISIDINE AND N AND TETRAACETIC ACID
 L19 0 S DIANISIDINE AND TETRAACETIC ACID
 L20 0 S DIANISIDINE AND ACETIC ACID
 L21 10 S DIANISIDINE AND ACID
 L22 41 S DIANISIDINE
 L23 7351 S N CARBOXYMETHYL AND GLYCINE
 L24 2193 S L23 AND PHENYL
 L25 28 S N CARBOXYMETHYL AND PHENYL GLYCINE
 L26 1 S 1147-65-5

FILE 'CA' ENTERED AT 16:44:05 ON 30 APR 2003

L27 98 S L26
 L28 25 S L27 AND PHOTO?
 L29 1 S L28 AND (IR OR INFRARED OR INFRA RED)

=> s l28 not l29

L30 24 L28 NOT L29

=> d ti 1-24

L30 ANSWER 1 OF 24 CA COPYRIGHT 2003 ACS
TI Processing of color **photographic** material containing
pyrrolotriazole cyan coupler with ferric dicarboxylate complex bleaching
agent to prevent stain formation

L30 ANSWER 2 OF 24 CA COPYRIGHT 2003 ACS
TI Method for processing silver halide color **photographic** material
using bleach solution containing sulfinate

L30 ANSWER 3 OF 24 CA COPYRIGHT 2003 ACS
TI Processing of silver halide **photographic** material with good
desilvering property and little bleaching fog

L30 ANSWER 4 OF 24 CA COPYRIGHT 2003 ACS
TI Processing of silver halide color **photographic** material with
bleaching solution

L30 ANSWER 5 OF 24 CA COPYRIGHT 2003 ACS
TI Processing of silver halide color **photographic** materials and
regenerating agent for bleaching solution used in the process

L30 ANSWER 6 OF 24 CA COPYRIGHT 2003 ACS
TI Processing of silver halide color **photographic** material with
superior desilvering property and improved image stability

L30 ANSWER 7 OF 24 CA COPYRIGHT 2003 ACS
TI Rapid desilvering undergoing color **photographic** material and its
processing

L30 ANSWER 8 OF 24 CA COPYRIGHT 2003 ACS
TI Processing method of silver halide color **photographic** material

L30 ANSWER 9 OF 24 CA COPYRIGHT 2003 ACS
TI Processing of silver halide color **photographic** material

L30 ANSWER 10 OF 24 CA COPYRIGHT 2003 ACS
TI Processing of silver halide **photographic** materials

L30 ANSWER 11 OF 24 CA COPYRIGHT 2003 ACS
TI processing of silver halide color **photographic** material

L30 ANSWER 12 OF 24 CA COPYRIGHT 2003 ACS
TI processing of silver halide color **photographic** material

L30 ANSWER 13 OF 24 CA COPYRIGHT 2003 ACS
TI Processing of silver halide color **photographic** materials and
bleaching/fixing compositions therefor

L30 ANSWER 14 OF 24 CA COPYRIGHT 2003 ACS
TI Silver halide **photographic** material resistant to metal-caused
spotting

L30 ANSWER 15 OF 24 CA COPYRIGHT 2003 ACS
TI Method for processing silver halide color **photographic** materials
with little poor desilverization using automatic developing apparatuses

L30 ANSWER 16 OF 24 CA COPYRIGHT 2003 ACS
TI Method for processing silver halide color **photographic** materials
containing four-equivalent 5-pyrazolone magenta couplers

L30 ANSWER 17 OF 24 CA COPYRIGHT 2003 ACS
TI **photographic** bleaching solution

L30 ANSWER 18 OF 24 CA COPYRIGHT 2003 ACS
TI reducer for silver halide **photographic** material

L30 ANSWER 19 OF 24 CA COPYRIGHT 2003 ACS
TI **Photographic** processing composition containing monoamine compound

L30 ANSWER 20 OF 24 CA COPYRIGHT 2003 ACS
TI Kinetics and mechanisms of **photoinduced** reduction of iodine by monoamine-N-polycarboxylate ions in an aqueous solution

L30 ANSWER 21 OF 24 CA COPYRIGHT 2003 ACS
TI Simultaneous spectrophotometric determination of gallium and indium

L30 ANSWER 22 OF 24 CA COPYRIGHT 2003 ACS
TI **Photochrometric** determination of iron(III)

L30 ANSWER 23 OF 24 CA COPYRIGHT 2003 ACS
TI Studies with complexons. Instrumentation and experimental technique

L30 ANSWER 24 OF 24 CA COPYRIGHT 2003 ACS
TI Metallic complexes of N,N-bis(carboxymethyl)anthranilic acid

=> s ir or infrared or infra red

492857 IR
221359 INFRARED
3776 INFRA
326624 RED
3341 INFRA RED
(INFRA(W) RED)

L31 565336 IR OR INFRARED OR INFRA RED

=> s carboxymethyl and l31

28062 CARBOXYMETHYL

L32 954 CARBOXYMETHYL AND L31

=> s l32 and photo?

1143616 PHOTO?

L33 34 L32 AND PHOTO?

=> s l33 and lithograph?

34550 LITHOGRAPH?

L34 0 L33 AND LITHOGRAPH?

=> s l33 not l30

L35 34 L33 NOT L30

=> d ti 1-34

L35 ANSWER 1 OF 34 CA COPYRIGHT 2003 ACS
TI Diagnostic imaging compositions, their methods of synthesis, and use

L35 ANSWER 2 OF 34 CA COPYRIGHT 2003 ACS
TI Efficient visible light sensitization of water-soluble near-**infrared** luminescent lanthanide complexes

L35 ANSWER 3 OF 34 CA COPYRIGHT 2003 ACS
TI Processing of tetrazolium-containing silver halide **photographic** material with mercapto compound-containing developer to improve characteristic and dot quality

L35 ANSWER 4 OF 34 CA COPYRIGHT 2003 ACS
TI **Photocuring** method by shielding oxygen on the surface of **photocurable** materials

L35 ANSWER 5 OF 34 CA COPYRIGHT 2003 ACS

- TI Electron Spin Resonance Studies of **Photocatalytic** Interface Reactions of Suspended M/TiO₂ (M = Pt, Pd, **Ir**, Rh, Os, or Ru) with Alcohol and Acetic Acid in Aqueous Media
- L35 ANSWER 6 OF 34 CA COPYRIGHT 2003 ACS
TI **Photocrosslinking** of water-soluble polymers bearing a pendant cyclohexene moiety
- L35 ANSWER 7 OF 34 CA COPYRIGHT 2003 ACS
TI Development of silver halide **photographic** material by coating-application of developing solution
- L35 ANSWER 8 OF 34 CA COPYRIGHT 2003 ACS
TI **Photoacoustic** FT-IR study on keratin chemically bound on the surface of silica gel particles
- L35 ANSWER 9 OF 34 CA COPYRIGHT 2003 ACS
TI Substantivity through cationic substitution
- L35 ANSWER 10 OF 34 CA COPYRIGHT 2003 ACS
TI Method of silver image formation
- L35 ANSWER 11 OF 34 CA COPYRIGHT 2003 ACS
TI **Photoelectrochemical** studies of electrodes coated with merocyanine dye
- L35 ANSWER 12 OF 34 CA COPYRIGHT 2003 ACS
TI Bonding in silver complexes of carboxylic acid substituted thionamides examined by **infrared**, laser-Raman, and x-ray **photoelectron** spectroscopy
- L35 ANSWER 13 OF 34 CA COPYRIGHT 2003 ACS
TI Study of the effect of uv radiation on carboxyl-containing cellulose materials
- L35 ANSWER 14 OF 34 CA COPYRIGHT 2003 ACS
TI Rapid hardening cement. III. Effects of keto carboxylic acids on the hydration of calcium sulfate hemihydrate
- L35 ANSWER 15 OF 34 CA COPYRIGHT 2003 ACS
TI Addition compounds of bis(salicylaldehyde)ethylenediiminecopper. X. Synthesis of 3-(carboxyalkyl)salicylaldehyde derivatives and their copper chelates
- L35 ANSWER 16 OF 34 CA COPYRIGHT 2003 ACS
TI Decomposable thermoplastic compositions
- L35 ANSWER 17 OF 34 CA COPYRIGHT 2003 ACS
TI The preparation of biochemically interesting thio ethers of estrogens. II. 2-Methoxy-4-(carboxymethylthio)estrone 3-methyl ethers
- L35 ANSWER 18 OF 34 CA COPYRIGHT 2003 ACS
TI Preparation and coordination studies of the complex acid, dihydrogen diethylenetriaminepentaacetateferrate(III) dihydrate, and several of its metal(I) salts
- L35 ANSWER 19 OF 34 CA COPYRIGHT 2003 ACS
TI Structure of metal complexes of anthranilyldiacetic acid
- L35 ANSWER 20 OF 34 CA COPYRIGHT 2003 ACS
TI Heat-sensitive copying material
- L35 ANSWER 21 OF 34 CA COPYRIGHT 2003 ACS
TI Synthetic studies leading to dl-telekin and dl-alantolactone

L35 ANSWER 22 OF 34 CA COPYRIGHT 2003 ACS
 TI **Photolysis** of silver alginate and silver **carboxymethyl** cellulose

L35 ANSWER 23 OF 34 CA COPYRIGHT 2003 ACS
 TI Halogen containing heterocyclic compounds. II. Halogenation of furfuryl derivatives-maleic anhydride adduct

L35 ANSWER 24 OF 34 CA COPYRIGHT 2003 ACS
 TI Light-sensitive materials with incorporated developing agents

L35 ANSWER 25 OF 34 CA COPYRIGHT 2003 ACS
 TI Synthesis of cyclobutane derivatives from unsaturated fatty acid esters. **Photochemical** reactions of muconic acid dimethyl ester and sorbic acid methyl ester

L35 ANSWER 26 OF 34 CA COPYRIGHT 2003 ACS
 TI Grafting of poly(vinyl chloride) (PVC) on cellulose and its derivatives

L35 ANSWER 27 OF 34 CA COPYRIGHT 2003 ACS
 TI **Photochemical** reactions. XVII. **Photochemical** transformations of O-acetyl-1-dehydrotestosterone. 2

L35 ANSWER 28 OF 34 CA COPYRIGHT 2003 ACS
 TI Thermographic formation of images in plastic films

L35 ANSWER 29 OF 34 CA COPYRIGHT 2003 ACS
 TI **Photographic** filter layer

L35 ANSWER 30 OF 34 CA COPYRIGHT 2003 ACS
 TI Couplers for **photographic** emulsions

L35 ANSWER 31 OF 34 CA COPYRIGHT 2003 ACS
 TI Cupric complexes as **infrared**-absorbing filters

L35 ANSWER 32 OF 34 CA COPYRIGHT 2003 ACS
 TI Stereospecific synthesis of (+)-O-methylpsychotrine and (-)-emetine

L35 ANSWER 33 OF 34 CA COPYRIGHT 2003 ACS
 TI Stereochemistry of tropane alkaloids. IX. Selective quaternization of 3.alpha.- and 3.beta.-tropanol and of their derivatives

L35 ANSWER 34 OF 34 CA COPYRIGHT 2003 ACS
 TI Forming films

=> d all 1-2,4

L35 ANSWER 1 OF 34 CA COPYRIGHT 2003 ACS
 AN 137:358081 CA
 TI Diagnostic imaging compositions, their methods of synthesis, and use
 IN Li, Chun; Wen, Xiaoxia; Wu, Qing-Ping; Wallace, Sydney; Ellis, Lee M.
 PA Board of Regents, the University of Texas System, USA
 SO PCT Int. Appl., 84 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM A61K
 CC 63-5 (Pharmaceuticals)
 Section cross-reference(s): 1, 8

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|--|------|----------|-----------------|----------|
| PI | WO 2002087498 | A2 | 20021107 | WO 2002-US12510 | 20020419 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, | | | | |

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
 PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
 UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
 CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2002197261 A1 20021226 US 2002-126369 20020419
 US 2003003048 A1 20030102 US 2002-126216 20020419

PRAI US 2001-286453P P 20010426
 US 2001-334969P P 20011204
 US 2001-343147P P 20011220

AB Conjugate mols. comprising a ligand bonded to a polymer are disclosed.
 One such conjugate mol. comprises a ligand bonded to a polymer, a
 chelating agent bonded to the polymer, and a radioisotope chelated to the
 chelating agent. The conjugate mols. may be useful in detecting and/or
 treating tumors or biol. receptors. These conjugate mols. may be
 synthesized without the necessity of preactivation of the ligand using an
 SCN-polymer-chelating agent precursor. Conjugate mols. incorporating an
 annexin V ligand are particularly useful for visualizing apoptotic cells.
 Conjugate mols. incorporating a C225 ligand are particularly useful for
 targeting tumors expressing EGFR.

ST indium 111 antibody annexin conjugate tumor imaging; immunoconjugate
 radiolabeled tumor targeting

IT Lymphoma
 (B-cell; diagnostic imaging compns. comprising radiolabeled conjugates)

IT Annexins
 RL: DGN (Diagnostic use); PKT (Pharmacokinetics); SPN (Synthetic
 preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (V, radiolabeled conjugates; diagnostic imaging compns. comprising
 radiolabeled conjugates)

IT Mammary gland
 (adenocarcinoma; diagnostic imaging compns. comprising radiolabeled
 conjugates)

IT Diagnosis
 (agents; diagnostic imaging compns. comprising radiolabeled conjugates)

IT Vascular endothelial growth factor receptors
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (antibodies to, radiolabeled; diagnostic imaging compns. comprising
 radiolabeled conjugates)

IT Intestine, neoplasm
 (colon; diagnostic imaging compns. comprising radiolabeled conjugates)

IT Apoptosis
 (compns. comprising radiolabeled conjugates for imaging drug-induced
 apoptosis)

IT Antibodies
 RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
 (conjugates, radiolabeled; diagnostic imaging compns. comprising
 radiolabeled conjugates)

IT RGD peptides
 RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
 (cyclic, radiolabeled; diagnostic imaging compns. comprising
 radiolabeled conjugates)

IT Bone, neoplasm
 Brain, neoplasm
 Drug delivery systems
 Human
 Hypoxia, animal
 Infection
 Inflammation
 Leukemia
 Liver, neoplasm
 Lung, neoplasm
 Multiple sclerosis

- Neoplasm
- Ovary, neoplasm
- Pancreas, neoplasm
- Positron-emission tomography
- Radiopharmaceuticals
- Regeneration, animal
- Rheumatoid arthritis
- Scintigraphy
- Sickle cell anemia
- Single-photon-emission computed tomography
- Surgery
- Thalassemia
- Transplant rejection
 - (diagnostic imaging compns. comprising radiolabeled conjugates)
- IT Epidermal growth factor receptors
 - RL: BSU (Biological study, unclassified); BIOL (Biological study)
 - (diagnostic imaging compns. comprising radiolabeled conjugates)
- IT Toxicity
 - (drug; diagnostic imaging compns. comprising radiolabeled conjugates)
- IT Immunoglobulins
 - RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
 - (fragments, radiolabeled conjugates; diagnostic imaging compns. comprising radiolabeled conjugates)
- IT Drug delivery systems
 - (immunoconjugates; diagnostic imaging compns. comprising radiolabeled conjugates)
- IT Drug delivery systems
 - (injections; diagnostic imaging compns. comprising radiolabeled conjugates)
- IT Reperfusion
 - (injury; diagnostic imaging compns. comprising radiolabeled conjugates)
- IT Brain, disease
 - (ischemia; diagnostic imaging compns. comprising radiolabeled conjugates)
- IT Antibodies
 - RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
 - (labeled; diagnostic imaging compns. comprising radiolabeled conjugates)
- IT Dyes
 - (near-IR; diagnostic imaging compns. comprising radiolabeled conjugates)
- IT Head
 - Mammary gland
 - Neck, anatomical
 - Prostate gland
 - (neoplasm; diagnostic imaging compns. comprising radiolabeled conjugates)
- IT Chelating agents
 - (radiolabeled conjugates; diagnostic imaging compns. comprising radiolabeled conjugates)
- IT Amines, biological studies
 - Growth factors, animal
 - Hepatocyte growth factor
 - Interferons
 - Ligands
 - Peptides, biological studies
 - Phosphines
 - Polymers, biological studies
 - Polyoxyalkylenes, biological studies
 - Polysaccharides, biological studies
 - Proteins
 - Thiols (organic), biological studies
 - Thrombospondins
 - Tumor necrosis factors
 - RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)

(radiolabeled conjugates; diagnostic imaging compns. comprising radiolabeled conjugates)

IT Injury
(trauma; diagnostic imaging compns. comprising radiolabeled conjugates)

IT Imaging
(tumor; diagnostic imaging compns. comprising radiolabeled conjugates)

IT Reproductive tract
(vulva, squamous cell carcinoma; diagnostic imaging compns. comprising radiolabeled conjugates)

IT Integrins
RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
(.alpha.v.beta.3, antibodies to, radiolabeled; diagnostic imaging compns. comprising radiolabeled conjugates)

IT 324740-00-3D, LM 609, radiolabeled conjugates
RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
(LM 609; diagnostic imaging compns. comprising radiolabeled conjugates)

IT 127464-60-2, Vascular endothelial growth factor
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(antibodies to, radiolabeled; diagnostic imaging compns. comprising radiolabeled conjugates)

IT 147-94-4, Ara-c 33069-62-4, Paclitaxel
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. comprising radiolabeled conjugates for imaging drug-induced apoptosis)

IT 60-00-4D, EDTA, radiolabeled conjugates 295-37-4D, Cyclam, radiolabeled conjugates 365-08-2D, DTTP, radiolabeled conjugates 482-54-2D, 1,2-Cyclohexanediamine-N,N,N',N'-tetraacetic acid, radiolabeled conjugates 1429-50-1D, EDTMP, radiolabeled conjugates 2418-14-6D, Dimercaptosuccinic acid, radiolabeled conjugates 2809-21-4D, HEDP, radiolabeled conjugates 3565-84-2D, Cy-DTPA, radiolabeled conjugates 3599-32-4, Indocyanine green 9002-89-5D, Polyvinyl alcohol, radiolabeled conjugates 9003-01-4D, Polyacrylic acid, radiolabeled conjugates 9003-39-8D, Polyvinyl pyrrolidone, radiolabeled conjugates 9004-54-0D, Dextran, radiolabeled conjugates 9004-61-9D, Hyaluronic acid, radiolabeled conjugates 9012-76-4D, Chitosan, radiolabeled conjugates 9044-05-7D, Carboxymethyl dextran, radiolabeled conjugates 10098-91-6D, Yttrium 90, radiolabeled conjugates, biological studies 13981-25-4D, Copper 64, radiolabeled conjugates, biological studies 14119-09-6D, Gallium 67, conjugates labeled with, biological studies 14344-48-0D, radiolabeled conjugates 14391-63-0D, Rubidium 82, conjugates labeled with, biological studies 14809-53-1D, Yttrium 86, radiolabeled conjugates, biological studies 15064-65-0D, Thallium 201, radiolabeled conjugates, biological studies 15735-70-3D, Platinum 193, radiolabeled conjugates, biological studies 15757-14-9D, Gallium 68, conjugates labeled with, biological studies 15757-86-5D, Copper 67, radiolabeled conjugates, biological studies 15827-60-8D, DTPMP, radiolabeled conjugates 25104-13-6D, Poly(D-glutamic acid), radiolabeled conjugates 25104-18-1D, Polylysine, radiolabeled conjugates 25322-69-4D, Polypropylene oxide, radiolabeled conjugates 25608-40-6D, Poly(L-aspartic acid), radiolabeled conjugates 26063-13-8D, Poly(L-aspartic acid), radiolabeled conjugates 27878-59-7D, Poly(2-hydroxyethyl L-glutamine), radiolabeled conjugates 27881-01-2D, Poly(D-aspartic acid), radiolabeled conjugates 27881-03-4D, Poly(DL-aspartic acid), radiolabeled conjugates 38000-06-5D, Polylysine, radiolabeled conjugates 49717-32-0D, radiolabeled conjugates 60239-18-1D, DOTA, radiolabeled conjugates 60239-20-5D, TRITA, radiolabeled conjugates 60239-22-7D, TETA, radiolabeled conjugates 62031-54-3D, FGF, radiolabeled conjugates 62229-50-9D, EGF, radiolabeled conjugates 72772-21-5D, radiolabeled conjugates 86090-08-6D, Angiostatin, radiolabeled conjugates 91987-74-5D, DOTP, radiolabeled conjugates 104162-48-3D, DOTMA, radiolabeled conjugates 113786-33-7D, BOPTA, radiolabeled conjugates 120041-08-9D, HP-D03A, radiolabeled conjugates 120041-09-0D, radiolabeled conjugates 131418-52-5D, radiolabeled conjugates 132446-35-6D, DOTMP, radiolabeled conjugates

133081-24-0D, 6-Hydrazinonicotinic acid, radiolabeled conjugates
 136705-18-5D, DOTE, radiolabeled conjugates 138149-64-1D, DOTPP,
 radiolabeled conjugates 145089-54-9D, DOTBzP, radiolabeled conjugates
 158414-87-0D, Cy2-DTPA, radiolabeled conjugates 161167-43-7D, DOTPME,
 radiolabeled conjugates 174722-31-7D, Rituxan, radiolabeled conjugates
 180288-69-1D, Herceptin, radiolabeled conjugates 186270-49-5D,
 Angiopoietin 1, radiolabeled conjugates 187888-07-9D, Endostatin,
 radiolabeled conjugates 194368-66-6D, Angiopoietin 2, radiolabeled
 conjugates 215369-21-4D, DC101, radiolabeled conjugates 221230-66-6D,
 radiolabeled conjugates 244082-19-7D, radiolabeled conjugates
 474424-15-2D, radiolabeled conjugates
 RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
 (diagnostic imaging compns. comprising radiolabeled conjugates)
 IT 67-43-6DP, DTPA, radiolabeled conjugates 15750-15-9DP, Indium 111,
 antibody conjugates labeled with, biological studies 25322-68-3DP, PEG,
 radiolabeled conjugates 205923-56-4DP, C225, radiolabeled conjugates
 RL: DGN (Diagnostic use); PKT (Pharmacokinetics); SPN (Synthetic
 preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (diagnostic imaging compns. comprising radiolabeled conjugates)
 IT 24991-23-9D, paclitaxel conjugate
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (diagnostic imaging compns. comprising radiolabeled conjugates)
 IT 77-77-0, Vinyl sulfone 122-04-3, p-Nitrobenzoyl chloride 541-59-3,
 Maleimide 23911-26-4, DTPA dianhydride 68181-17-9, SPDP 76931-93-6,
 N-Succinimidyl S-acetylthioacetate 198227-38-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (diagnostic imaging compns. comprising radiolabeled conjugates)
 IT 474816-74-5P 474816-75-6P 474816-76-7P 474816-77-8P 474816-78-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (diagnostic imaging compns. comprising radiolabeled conjugates)
 IT 474816-78-9DP, reaction products with annexin V
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
 study); PREP (Preparation); USES (Uses)
 (diagnostic imaging compns. comprising radiolabeled conjugates)
 IT 477304-85-1P 477304-91-9P 477305-03-6P 477305-04-7P 477305-05-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (in polymer immunoconjugate preps. for tumor targeting)
 IT 14133-76-7D, Technetium 99, radiolabeled conjugates, biological studies
 14885-78-0D, Indium 113, radiolabeled conjugates, biological studies
 RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
 (metastable; diagnostic imaging compns. comprising radiolabeled
 conjugates)
 IT 25513-46-6D, Poly-L-glutamic acid, paclitaxel conjugate
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (radiolabeled conjugates; diagnostic imaging compns. comprising
 radiolabeled conjugates)

L35 ANSWER 2 OF 34 CA COPYRIGHT 2003 ACS
 AN 133:10882 CA
 TI Efficient visible light sensitization of water-soluble near-
 infrared luminescent lanthanide complexes
 AU Werts, Martinus H. V.; Verhoeven, Jan W.; Hofstraat, Johannes W.
 CS Laboratory of Organic Chemistry, University of Amsterdam, Amsterdam, 1018
 WS, Neth.
 SO Perkin 2 (2000), (3), 433-439
 CODEN: PRKTFO
 PB Royal Society of Chemistry
 DT Journal
 LA English
 CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)

Section cross-reference(s): 73

- AB Fluorexon (4',5'-bis[N,N-bis(carboxymethyl)aminomethyl]fluorescein) forms stable, water-sol. complexes with lanthanide ions. The complexes with neodymium(III), erbium(III) and ytterbium(III) display sensitized near-IR lanthanide luminescence upon excitation of the Fluorexon with visible light. The photosensitization efficiency is very high (0.5-1.0) as a result of lanthanide-enhanced intersystem crossing in the sensitizing chromophore and rapid intracomplex energy transfer. The overall luminescence quantum yields, however, are low (2 .times. 10⁻⁴-5 .times. 10⁻³) due to nonradiative deactivation of the excited lanthanide ion.
- ST IR luminescent lanthanide complex Fluorexon
- IT IR luminescence
(near-; visible light sensitization of water-sol. near-IR luminescent lanthanide complexes of Fluorexon)
- IT Luminescence quenching
Triplet state transition
(quenching of Fluorexon luminescence by lanthanide ions via complex formation)
- IT Optical absorption
(transient; visible light sensitization of water-sol. near-IR luminescent lanthanide complexes of Fluorexon)
- IT Complexation
Intersystem crossing
(visible light sensitization of water-sol. near-IR luminescent lanthanide complexes of Fluorexon)
- IT 14913-52-1, Neodymium(3+), properties 18472-30-5, Erbium(3+), properties 18923-27-8, Ytterbium(3+), properties
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(quenching of Fluorexon luminescence by lanthanide ions via complex formation)
- IT 1461-15-0, Fluorexon 270568-14-4 270568-15-5 270568-16-6
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(visible light sensitization of water-sol. near-IR luminescent lanthanide complexes of Fluorexon)

RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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L35 ANSWER 4 OF 34 CA COPYRIGHT 2003 ACS

AN 128:154902 CA

TI **Photocuring** method by shielding oxygen on the surface of **photocurable** materials

IN Kamata, Hirotoishi; Watanabe, Takeo; Oga, Kazuhiko; Sugita, Shuichi

PA Showa Denko K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08F002-48

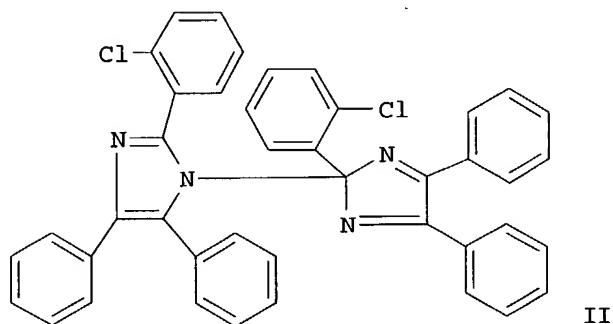
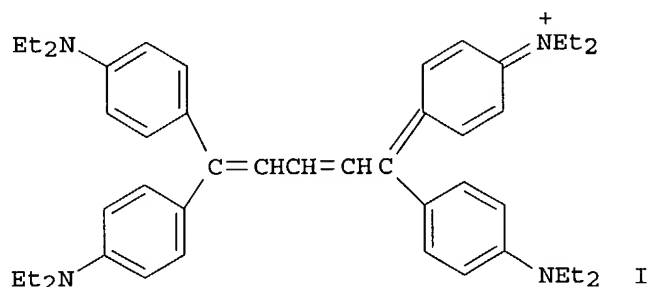
ICS B29C067-00; C08F002-44; C09D004-00; C09D201-00

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 42

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 10007707 | A2 | 19980113 | JP 1996-164728 | 19960625 |
| PRAI | JP 1996-164728 | | 19960625 | | |
| GI | | | | | |



AB A method includes applying aq. solns. of film-formable water-sol. org. polymers on the surface of **photocurable** materials to shield O in the air and irradiating with visible ray and near-IR ray. The films made from the water-sol. org. polymers can be easily removed after **photocuring**. Preferably, the **photocurable** materials

contain (A) ethylenically unsatd. compds., (B) near-IR radical polymn. initiators, (C) visible ray radical polymn. initiators, and (D) .gtoreq.1 filler chosen from pigments, dyes, extender pigments, and fiber reinforcers. Thus, a compn. comprising Ripoxy SP 1509 75, styrene 25, talc 100, I butyltriphenylborate 0.10, tetrabutylammonium butyltriphenylborate 0.50, II 0.50, and 2-mercaptobenzothiazole 0.50 part, was poured into a mold, coated with aq. 5% Poval 217 (III) on the surface of the compn., irradiated, and freed of the III film to give a cured product having a tack-free surface.

- ST oxygen shield coating radical **photocuring**; vinyl ester styrene **photocuring**; polymn inhibitor oxygen shield
- IT Polyoxyalkylenes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(PEO 15, coatings; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)
- IT Epoxy resins, preparation
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
(acrylates, polymers with styrene, **photocured**; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)
- IT Polyesters, preparation
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
(acrylic, **photocured**; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)
- IT Gelatins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(coatings; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)
- IT Polymerization inhibitors
(oxygen; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)
- IT Polymerization catalysts
Polymerization catalysts
(**photochem.**, radical; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)
- IT Coating materials
Shields
(**photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)
- IT Acrylic polymers, preparation
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
(polyester-, **photocured**; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)
- IT Polyesters, preparation
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
(unsatd., **photocured**; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)
- IT Polymers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(water-sol.; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)
- IT 25322-68-3, PEO 15
RL: TEM (Technical or engineered material use); USES (Uses)

(PEO 15, coatings; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT 9002-89-5, Poval 217
 RL: TEM (Technical or engineered material use); USES (Uses)
 (Poval 217, coatings; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT 9003-39-8, Polyvinylpyrrolidone 9004-32-4, **Carboxymethyl** cellulose sodium salt 9005-25-8, Starch, uses 9057-02-7, Pullulan 28408-65-3, Poly(N-Vinylacetamide)
 RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT 14807-96-6, Talc, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (extender pigment; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT 54847-75-5P, Rigolac 2141 115856-61-6P 115980-50-2P 137803-90-8P, U-PICA 6424 202530-48-1P 202530-49-2P 202530-50-5P 202535-00-0P
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
 (**photocured**; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT 199128-41-1P, Rigolac G 200GMA
 RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
 (**photocured**; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT 7782-44-7, Oxygen, uses
 RL: CAT (Catalyst use); USES (Uses)
 (**photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT 99-97-8, N,N-Dimethyl-p-toluidine 102-71-6, Triethanolamine, uses 103-01-5, n-Phenylglycine 134-81-6 149-30-4, 2-Mercaptobenzothiazole 583-39-1 21245-01-2, Isoamyl p-dimethylaminobenzoate 79044-56-7 96233-24-8 120307-06-4, Tetrabutylammonium butyltriphenylborate 141714-54-7 159116-57-1 174285-64-4, Irgacure 1700 174914-36-4 184591-58-0 189947-80-6 189947-84-0 189947-86-2 189947-87-3 192642-08-3 202530-51-6 202530-52-7 202530-53-8 202530-54-9
 RL: CAT (Catalyst use); USES (Uses)
 (radical **photopolymn.** catalyst; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

=> e munnelly h/in

| | | |
|-----|-------|--------------------------|
| E1 | 1 | MUNNECKE DOUGLAS M/IN |
| E2 | 1 | MUNNECKE GUSTAV ADOLF/IN |
| E3 | 0 --> | MUNNELLY H/IN |
| E4 | 1 | MUNNELLY HEIDI M/IN |
| E5 | 2 | MUNNES SIEGFRIED/IN |
| E6 | 3 | MUNNICH ARNOLD/IN |
| E7 | 1 | MUNNIG JURGEN/IN |
| E8 | 1 | MUNNIG RAINER/IN |
| E9 | 1 | MUNNING A P/IN |
| E10 | 1 | MUNNING AUGUST PETER/IN |
| E11 | 1 | MUNNING J/IN |
| E12 | 1 | MUNNING JASON N/IN |

=> s e4

L36 1 "MUNNELLY HEIDI M"/IN

=> d all

L36 ANSWER 1 OF 1 CA COPYRIGHT 2003 ACS
AN 138:278451 CA
TI On-press developable IR sensitive printing plates using binder resins having polyethylene oxide segments
IN Huang, Jianbing; Munnelly, Heidi M.; Saraiya, Shashikant; Pappas, Socrates Peter
PA USA
SO U.S. Pat. Appl. Publ., 20 pp., Cont.-in-part of U.S. Ser. No. 826,300.
CODEN: USXXCO
DT Patent
LA English
IC ICM G03C001-76
ICS G03C001-73; G03F007-027; G03F007-028; G03F007-032; G03F007-09; G03F007-26; G03F007-20
NCL 430270100; 430271100; 430280100; 430281100; 430285100; 430302000; 430330000; 430905000; 430906000; 430907000
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35, 38

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | US 2003064318 | A1 | 20030403 | US 2002-119454 | 20020410 |
| | US 2002155375 | A1 | 20021024 | US 2001-826300 | 20010404 |
| PRAI | US 2001-826300 | A2 | 20010404 | | |

AB The present invention relates to a polymerizable coating compn. suitable for the manuf. of printing plates developable on-press. The coating compn. comprises (i) a polymerizable compd. and (ii) a polymeric binder comprising polyethylene oxide segments, wherein the polymeric binder is selected from the group consisting of at least one graft copolymer comprising a main chain polymer and polyethylene oxide side chains, a block copolymer having at least one polyethylene oxide block and at least one non-polyethylene oxide block, and a combination thereof. The invention is also directed to an imageable element comprising a substrate and the polymerizable coating compn.

ST IR sensitive printing plates binder resins polyethylene oxide graft
IT Polyoxyalkylenes, preparation
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic, graft; binder resins for on-press developable IR sensitive printing plates)
IT Printing plates
(on-press developable IR sensitive printing plates using binder resins having polyethylene oxide segments)
IT Polyoxyalkylenes, preparation
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polystyrene-, graft; binder resins for on-press developable IR sensitive printing plates)
IT 170211-39-9P, Ethyleneoxide-methyl methacrylate graft copolymer methyl ether 176779-38-7P, Ethyleneoxide-styrene graft copolymer methyl ether 503569-50-4P 503569-51-5P 503569-52-6P 503569-53-7P 503605-14-9P 503605-15-0P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(binder resins for on-press developable IR sensitive printing plates)
IT 401624-10-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(macro-mer for binder resins for on-press developable IR sensitive printing plates)
IT 2094-99-7, m-Isopropenyl-.alpha.,.alpha.-dimethylbenzyl isocyanate

9004-74-4, Poly(ethyleneglycol monomethyl ether) 499770-39-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of macro-mer for binder resins for on-press developable IR
sensitive printing plates)

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E1 7 MUNNELL JOHN F/AU
E2 1 MUNNELL MARK E/AU
E3 0 --> MUNNELLY H/AU
E4 1 MUNNELLY H M/AU
E5 2 MUNNELLY HEIDI/AU
E6 5 MUNNELLY HEIDI M/AU
E7 7 MUNNELLY K P/AU
E8 1 MUNNELLY KEVIN D/AU
E9 2 MUNNELLY KEVIN P/AU
E10 1 MUNNELLY P J/AU
E11 1 MUNNELLY T I/AU
E12 2 MUNNELLY TERENCE I/AU

=> s e4-e6

1 "MUNNELLY H M"/AU
2 "MUNNELLY HEIDI"/AU
5 "MUNNELLY HEIDI M"/AU
L37 8 ("MUNNELLY H M"/AU OR "MUNNELLY HEIDI"/AU OR "MUNNELLY HEIDI
M"/AU)

=> d all 1-8

L37 ANSWER 1 OF 8 CA COPYRIGHT 2003 ACS
AN 138:278451 CA
TI On-press developable IR sensitive printing plates using binder resins
having polyethylene oxide segments
IN Huang, Jianbing; Munnelly, Heidi M.; Saraiya, Shashikant;
Pappas, Socrates Peter
PA USA
SO U.S. Pat. Appl. Publ., 20 pp., Cont.-in-part of U.S. Ser. No. 826,300.
CODEN: USXXCO
DT Patent
LA English
IC ICM G03C001-76
ICS G03C001-73; G03F007-027; G03F007-028; G03F007-032; G03F007-09;
G03F007-26; G03F007-20
NCL 430270100; 430271100; 430280100; 430281100; 430285100; 430302000;
430330000; 430905000; 430906000; 430907000
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
Section cross-reference(s): 35, 38
FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | US 2003064318 | A1 | 20030403 | US 2002-119454 | 20020410 |
| | US 2002155375 | A1 | 20021024 | US 2001-826300 | 20010404 |
| PRAI | US 2001-826300 | A2 | 20010404 | | |

AB The present invention relates to a polymerizable coating compn. suitable
for the manuf. of printing plates developable on-press. The coating
compn. comprises (i) a polymerizable compd. and (ii) a polymeric binder
comprising polyethylene oxide segments, wherein the polymeric binder is
selected from the group consisting of at least one graft copolymer
comprising a main chain polymer and polyethylene oxide side chains, a
block copolymer having at least one polyethylene oxide block and at least
one non-polyethylene oxide block, and a combination thereof. The
invention is also directed to an imageable element comprising a substrate
and the polymerizable coating compn.
ST IR sensitive printing plates binder resins polyethylene oxide graft

IT Polyoxyalkylenes, preparation
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (acrylic, graft; binder resins for on-press developable IR sensitive printing plates)

IT Printing plates
 (on-press developable IR sensitive printing plates using binder resins having polyethylene oxide segments)

IT Polyoxyalkylenes, preparation
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (polystyrene-, graft; binder resins for on-press developable IR sensitive printing plates)

IT 170211-39-9P, Ethyleneoxide-methyl methacrylate graft copolymer methyl ether 176779-38-7P, Ethyleneoxide-styrene graft copolymer methyl ether 503569-50-4P 503569-51-5P 503569-52-6P 503569-53-7P 503605-14-9P 503605-15-0P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (binder resins for on-press developable IR sensitive printing plates)

IT 401624-10-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (macro-mer for binder resins for on-press developable IR sensitive printing plates)

IT 2094-99-7, m-Isopropenyl-.alpha.,.alpha.-dimethylbenzyl isocyanate 9004-74-4, Poly(ethyleneglycol monomethyl ether) 499770-39-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. of macro-mer for binder resins for on-press developable IR sensitive printing plates)

L37 ANSWER 2 OF 8 CA COPYRIGHT 2003 ACS
 AN 135:240581 CA
 TI Molecular dynamics of point mutated I-Ak molecules expressed on lymphocytes
 AU Munnelly, H. M.; Brady, C. J.; Hagen, G. M.; Horvat, R. D.; Wade, W. F.; Roess, D. A.; Barisas, B. G.
 CS Department of Chemistry, Colorado State University, Fort Collins, CO, 80523, USA
 SO Immunology Letters (2001), 77(3), 187-196
 CODEN: IMLED6; ISSN: 0165-2478
 PB Elsevier Science Ireland Ltd.
 DT Journal
 LA English
 CC 15-2 (Immunochemistry)
 AB The authors have recently reported the lateral and rotational diffusion parameters for I-Ak mols. expressing various cytoplasmic truncations. The authors now describe the membrane dynamics of I-Ak with various mutations in the presumed contact region between .alpha..beta.-heterodimers in an (.alpha..beta.)₂ dimer of dimers structure. Such mutations are known to strongly affect the antigen presentation ability of these mols. but cause relatively small changes in the mol. dynamics of I-Ak. Lateral diffusion coeffs. of I-Ak wild-type mols. and mutants obtained via fringe fluorescence photobleaching recovery (FPR) ranged from 1.1 to 2.3.times.10⁻¹⁰cm²/s at room temp. while fractional mobilities averaged 75%. For all cell types examd., treatment with either hen egg lysozyme 46-61 peptide or db-cAMP reduced the I-Ak mobile fraction by about 10% relative to untreated cells, suggesting that these treatments may increase lateral confinement of class II in lipid rafts or cytoskeletal interactions of the mols. Wild-type I-Ak and mutants capable of normal or partial antigen presentation exhibited, as a group, slightly longer rotational correlation times (RCT) at 4.degree. than did mutants inactive in antigen presentation, 14 vs. 10 .mu.s, resp. Moreover, peptide, cAMP and anti-CD40 mAb treatment all increased rotational correlation times for fully- and partially-functional I-Ak but not for non-functional mols. For

example, 16 h peptide treatment yielded av. RCTs of 28 and 10 .mu.s for the groups of functional and non-functional mols., resp. Such modulation of the dynamics of functional class II mols. is consistent with these treatments' stabilization of class II or induction of new gene expression. Measurements of fluorescence resonant energy transfer between I-Ak, though complicated by cellular autofluorescence, averaged 6% over 15 cells or treatments, a result consistent with the presence of a small fraction of I-Ak as a dimer of dimers species. In summary, the results suggest subtle changes in the mol. motions of class II mols. correlate with a significant impact on class II function. Mols. active in antigen presentation exhibit more restricted motion in the membrane, and thus presumably more extensive intermol. interactions, than non-functional mols. Further, treatments, such as db-cAMP and anti-CD40, which rescue antigen presentation by partially defective mutants, appear to increase such interactions, several types of which have already been reported for class II. A more detailed understanding of these phenomena will require both more sensitive biophys. tools and a more refined model of the role of class II intermol. interactions in antigen presentation.

ST mol dynamics I-Ak histocompatibility antigen

IT Histocompatibility antigens

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(I-Ak; mol. dynamics of)

IT CD40 (antigen)

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(effect on lateral diffusion of I-Ak histocompatibility antigens by)

IT Antigen presentation

(lateral diffusion of I-Ak histocompatibility antigens in relation to function in)

IT Diffusion

(lateral; of I-Ak histocompatibility antigens)

IT 60-92-4, CAMP

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(effect on lateral diffusion of I-Ak histocompatibility antigens by)

RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD

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L37 ANSWER 3 OF 8 CA COPYRIGHT 2003 ACS

AN 134:37295 CA

TI Luteinizing hormone receptors are self-associated in the plasma membrane

AU Roess, Deborah A.; Horvat, Regina D.; Munnelly, Heidi; Barisas, B. George

CS Department of Physiology, Colorado State University, Fort Collins, CO, 80523, USA

SO Endocrinology (2000), 141(12), 4518-4523
CODEN: ENDOAO; ISSN: 0013-7227

PB Endocrine Society

DT Journal

LA English

CC 2-5 (Mammalian Hormones)

AB The authors have evaluated rat LH receptor self-assocn. and lateral dynamics for functional and nonfunctional receptors after binding of hormone. The authors demonstrate, for the first time, that grouped receptors obsd. in electron or light microscopy represent actual receptor dimers or oligomers rather than simply the concn. of receptors within membrane microdomains. Fringe fluorescence photobleaching recovery methods showed that, after binding of either LH or human CG (hCG), functional wild-type LH receptors, expressed on 293 cells (LHR-wt cells), have mobilities that are 25% lower than those of nonfunctional LH receptors contg. an arginine substitution for lysine at position 583 (LHR-K583R cells). Because lateral diffusion coeffs. in two dimensions depend only on the logarithm of the mol. size of the diffusing species, this result implies that functional receptors exist in substantially larger membrane complexes than do nonfunctional receptors. In single-cell measurements of fluorescence energy transfer after hormone binding, functional LH receptors were also characterized by receptor self-aggregation. Values for fluorescence resonant energy transfer efficiency were 13% and 17% between fluorophore-conjugated LH or hCG, resp., bound to receptors on LHR-wt cells. However, there was little or no energy transfer between receptors on LHR-K583R cells. These results suggest that receptor functionality involves receptor-receptor interactions and that the extent of such receptor self-assocn. depends on whether LH or hCG binds the receptor.

ST LH receptor selfassocn membrane function

IT Cell membrane

Self-association

(LH receptors self-assocn. in plasma membrane in relation to function)

IT Gonadotropin receptors

RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)

(LH receptors self-assocn. in plasma membrane in relation to function)

IT Dimers

Oligomers

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(LH receptors self-assocn. in plasma membrane in relation to function)

IT Gonadotropin receptors

RL: PEP (Physical, engineering or chemical process); PROC (Process)
(gonadotropin complexes; LH receptors self-assocn. in plasma membrane in relation to function)

IT Microfilament

(microfilament effect on LH receptors self-assocn. in plasma membrane in relation to function)

IT 74-79-3, L-Arginine, biological studies

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)

(LH receptor residue 583; LH receptors self-assocn. in plasma membrane in relation to function)

IT 9002-61-3, Chorionic gonadotropin 9002-67-9, LH
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(LH receptors self-assocn. in plasma membrane in relation to function)
IT 9002-61-3D, Chorionic gonadotropin, receptor complexes 9002-67-9D, LH, receptor complexes

RL: PEP (Physical, engineering or chemical process); PROC (Process)

(LH receptors self-assocn. in plasma membrane in relation to function)

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD

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L37 ANSWER 4 OF 8 CA COPYRIGHT 2003 ACS

AN 133:308804 CA

TI Rotational and lateral dynamics of I-Ak molecules expressing cytoplasmic truncations

AU **Munnelly, Heidi M.**; Brady, Cynthia J.; Hagen, Guy M.; Wade, William F.; Roess, Deborah A.; Barisas, B. George

CS Department of Chemistry, Colorado State University, Fort Collins, CO, 80523, USA

SO International Immunology (2000), 12(9), 1319-1328

CODEN: INIMEN; ISSN: 0953-8178

PB Oxford University Press

DT Journal

LA English

CC 15-2 (Immunochemistry)

AB Rotational and lateral diffusion of I-Ak mols. with various .alpha. and .beta. chain cytoplasmic truncations known to affect class II function were measured to assess the role of cytoplasmic domains in regulating I-Ak mol. motions. Deletion of all 12 .alpha. chain C-terminal residues and all 18 corresponding .beta. chain residues (.alpha.-12/.beta.-18) is known to abrogate translocation of protein kinase C to the nucleus upon class II crosslinking. Similarly, truncation of the entire cytoplasmic .alpha. chain domain and the 10 C-terminal residues of the .beta. chain impairs

presentation of antigenic peptides to T cells. The rotational correlation time of the wild-type mol., 11.9 .mu.s as measured by time-resolved phosphorescence anisotropy, decreased to 7.2 .mu.s in the fully truncated .alpha.-12/.beta.-18 protein. Other truncated class II mols. exhibited only small changes in mol. rotation rates relative to the wild-type. The rate of lateral diffusion of the fully truncated mol., measured with two independent methods, 2.3.times.10⁻¹⁰ cm²/s, was comparable with that of the wild-type mol. Thus, it appears that the .alpha. and .beta. chain cytoplasmic domains regulate the mol. motions of unperturbed I-Ak mols. only modestly, despite the known involvement of these regions in class II signaling. Various explanations for this behavior are discussed, e.g. the possibility that class II membrane complexes are sufficiently large that assocn. and dissocn. of specific signaling proteins during antigen presentation do not significantly perturb the apparent mol. motions of the complex.

ST mol rotation lateral diffusion MHC class II

IT Histocompatibility antigens

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)

(I-Ak; rotational and lateral dynamics of)

IT Diffusion

(lateral; of I-Ak histocompatibility antigen)

IT Molecular rotation

(of I-Ak histocompatibility antigen)

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L37 ANSWER 5 OF 8 CA COPYRIGHT 2003 ACS
 AN 130:348768 CA
 TI Biophysical studies of major histocompatibility complex class II mutants
 AU **Munnelly, Heidi M.**
 CS Colorado State Univ., Fort Collins, CO, USA
 SO (1998) 128 pp. Avail.: UMI, Order No. DA9911133
 From: Diss. Abstr. Int., B 1999, 59(11), 5827
 DT Dissertation
 LA English
 CC 6-3 (General Biochemistry)
 Section cross-reference(s): 15
 AB Unavailable
 ST major histocompatibility complex class II biophys properties; class II MHC
 antigen biophys properties
 IT Histocompatibility antigens
 RL: PRP (Properties)
 (MHC (major histocompatibility complex), class II; biophys. studies of
 major histocompatibility complex class II mutants)

L37 ANSWER 6 OF 8 CA COPYRIGHT 2003 ACS
 AN 129:227658 CA
 TI Interferometric fringe fluorescence photobleaching recovery interrogates
 entire cell surfaces
 AU **Munnelly, Heidi M.**; Roess, Deborah A.; Wade, William F.;
 Barisas, B. George
 CS Department of Chemistry, Colorado State University, Fort Collins, CO,
 80523, USA
 SO Biophysical Journal (1998), 75(2), 1131-1138
 CODEN: BIOJAU; ISSN: 0006-3495
 PB Biophysical Society
 DT Journal
 LA English
 CC 9-5 (Biochemical Methods)
 AB Fluorescence photobleaching recovery (FPR) measurements of cell surface
 protein lateral diffusion typically employ an interrogated spot of 0.5
 μm 1/e radius. The effective spot area represents only 1/500 of the
 total surface of an 8- μm cell. An FPR measurement of a protein
 expressed as 50,000 copies per cell reflects the dynamics of 100 mols.
 This limits the precision and reproducibility of FPR measurements. We
 describe a method for interferometric fringe pattern FPR that permits
 simultaneous interrogation of the entire cell's surface. Fringe patterns
 are generated interferometrically within the optical path of an FPR
 system. Methods for interpreting fluorescence recovery kinetics on cells
 and for detg. the protein mobile fraction are presented. With fringe FPR,
 the murine major histocompatibility complex class II antigen I-Ak
 expressed on M12.C3.F6 cells has 100-fold improved fluorescence signals
 relative to spot FPR, with corresponding improvements in signal-to-noise
 ratios of recovery traces. Diffusion coeffs. (\pm std. deviation) of
 (2.1 ± 0.4) $\times 10^{-10}$ and (1.8 ± 1.0) $\times 10^{-10}$ $\text{cm}^2 \text{ s}^{-1}$ with
 corresponding mobile fractions of I-Ak of $66.1 \pm 7.8\%$ and $63.4 \pm 18.0\%$
 were obtained by fringe and spot methods, resp. The improved
 reproducibility of fringe over spot results is less than signal
 improvements predict. There may thus be substantial variation from cell
 to cell in protein dynamics, and this method may permit the assessment of
 such variation.
 ST interferometric fringe fluorescence photobleaching cell surface
 IT Cell
 Fluorescence
 Interferometers
 Photochemical bleaching
 (interferometric fringe fluorescence photobleaching recovery
 interrogates entire cell surfaces)
 IT Proteins, general, biological studies
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (interferometric fringe fluorescence photobleaching recovery)

interrogates entire cell surfaces)

RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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- (18) Young, R; Biophys J 1994, V67, P881 CA

L37 ANSWER 7 OF 8 CA COPYRIGHT 2003 ACS

AN 129:36583 CA

TI Luteinizing hormone receptors are associated with non-receptor plasma membrane proteins on bovine luteal cell membranes

AU Roess, Deborah A.; Rahman, Noorulhuda A.; Munnelly, Heidi; Meiklejohn, Bruce I.; Brady, Cynthia J.; Barisas, B. G.

CS Departments of Physiology, Colorado State University, Fort Collins, CO, 80523, USA

SO Biochimica et Biophysica Acta (1998), 1371(1), 5-10
CODEN: BBACAQ; ISSN: 0006-3002

PB Elsevier Science B.V.

DT Journal

LA English

CC 2-5 (Mammalian Hormones)

AB Biophys. studies of the bovine LH receptor on luteal cell membranes suggest that this receptor may be part of a larger mol. wt. structure. The authors have used 5-iodonaphthyl-1-azide (INA) to identify plasma membrane proteins near LH receptors on plasma membranes from bovine corpora lutea. Following binding of eosin isothiocyanate-derivatized ovine LH or human chorionic gonadotropin (hCG), five proteins with mol. wts. of 71, 57, 55, 49 and 36 kDa were selectively derivatized with [125I]-INA following 2 h exposure at 22.degree. to 514 nm light. However, there was no fluorescence energy transfer between LH receptors occupied by ovine LH or hCG indicating that LH receptors were not self-assocd. in these membrane preps. Together these results suggest that, following hormone binding, single copies of the LH receptor may exist in large mol. wt. structures that include non-receptor proteins.

ST LH receptor protein luteal cell membrane

IT Cell membrane

Corpus luteum

Self-association

(LH receptors assocn. with non-receptor plasma membrane proteins on bovine luteal cell membranes)

IT Gonadotropin receptors

Proteins, general, biological studies

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(LH receptors assocn. with non-receptor plasma membrane proteins on bovine luteal cell membranes)

IT 9002-61-3, Chorionic gonadotropin 9002-67-9, LH

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(LH receptors assocn. with non-receptor plasma membrane proteins on bovine luteal cell membranes)

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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- (11) Zidovetzki, R; Proc Natl Acad Sci U S A 1985, V8, P1337

L37 ANSWER 8 OF 8 CA COPYRIGHT 2003 ACS

AN 127:106139 CA

TI Interferometric fringe patterns interrogate entire cell surfaces in fluorescence photobleaching recovery measurements of lateral diffusion

AU Barisas, B. George; Munnelly, Heidi M.; Roess, Deborah A.

CS Departments of Chemistry and Physiology, Colorado State University, Fort Collins, CO, 80523, USA

SO Proceedings of SPIE-The International Society for Optical Engineering (1997), 2980 (Advances in Fluorescence Sensing Technology III), 523-531
CODEN: PSISDG; ISSN: 0277-786X

PB SPIE-The International Society for Optical Engineering

DT Journal

LA English

CC 9-1 (Biochemical Methods)

Section cross-reference(s): 6, 15, 73

AB Lateral diffusion of cell surface proteins is commonly measured by spot fluorescence photobleaching recovery (FPR) methods where the $1/e^2$ radius of the interrogated spot is typically 0.5 μm . On an 8- μm lymphocyte, the effective spot area represents only 1/500 of the total surface. An FPR lateral diffusion measurement of a protein expressed as 50,000 copies per cell thus reflects the dynamics of only 100 mols. and this greatly limits the precision and reproducibility of FPR measurements. A new method for interferometric fringe pattern FPR permits simultaneous interrogation of the entire surface of round cells. Fringe patterns are generated interferometrically within the optical path of a conventional microscope FPR system so that spot photobleaching measurements can be performed interchangeably. Methods for interpreting recovery kinetics on round cells and for detg. the fraction of mobile protein are presented. Fringe FPR data of the murine MHC Class II antigen I-Ak (wt) expressed on M12.C3.F6 cells showed fluorescence signals improved 100-fold relative to spot FPR, with corresponding improvements in S/N ratios of recovery traces. Diffusion coeffs. of 2.07 ± 0.37 and 1.79 ± 0.97 $\times 10^{-10}$ $\text{cm}^2 \text{ s}^{-1}$ were obtained by fringe and spot methods, resp. The corresponding mobile fractions of I-Ak were $66.1 \pm 7.8\%$ and $63.4 \pm 18.0\%$. Improved reproducibility of fringe over spot results are slightly less than signal improvements predict. There may thus be substantial variation from cell to cell in protein dynamics and this method may permit the assessment of such variation.

ST interferometry fluorescence photobleaching membrane protein diffusion; lateral diffusion protein cell surface interferometry; interferometric fringe FPR protein diffusion detn; fluorescence microscope interferometer protein lateral diffusion

IT Histocompatibility antigens

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)

(I-Ak; interferometry/fluorescence photobleaching recovery detn. of cell surface protein lateral diffusion)

IT Histocompatibility antigens

RL: PEP (Physical, engineering or chemical process); PRP (Properties);

PROC (Process)
 (MHC (major histocompatibility complex), class II;
 interferometry/fluorescence photobleaching recovery detn. of cell
 surface protein lateral diffusion)

IT Proteins, specific or class
 RL: PEP (Physical, engineering or chemical process); PRP (Properties);
 PROC (Process)
 (cell surface-assocd.; interferometry/fluorescence photobleaching
 recovery detn. of cell surface protein lateral diffusion)

IT Microscopes
 (fluorescence; interferometry/fluorescence photobleaching recovery
 detn. of cell surface protein lateral diffusion)

IT Cell membrane
 Fluorometry
 Interferometers
 Interferometry
 Lymphocyte
 Photochemical bleaching
 Simulation and Modeling, physicochemical
 (interferometry/fluorescence photobleaching recovery detn. of cell
 surface protein lateral diffusion)

IT Proteins, general, properties
 RL: PEP (Physical, engineering or chemical process); PRP (Properties);
 PROC (Process)
 (interferometry/fluorescence photobleaching recovery detn. of cell
 surface protein lateral diffusion)

IT Diffusion
 (lateral; interferometry/fluorescence photobleaching recovery detn. of
 cell surface protein lateral diffusion)

=> e west p/au,in

| | | |
|-----|--------|-----------------|
| E1 | 1 | WEST OSCAR A/AU |
| E2 | 1 | WEST OSCAR A/IN |
| E3 | 55 --> | WEST P/AU |
| E4 | 1 | WEST P/IN |
| E5 | 4 | WEST P A/AU |
| E6 | 47 | WEST P C/AU |
| E7 | 6 | WEST P C H/AU |
| E8 | 4 | WEST P C H/IN |
| E9 | 1 | WEST P D/AU |
| E10 | 6 | WEST P E/AU |
| E11 | 1 | WEST P F/AU |
| E12 | 1 | WEST P G/AU |

=> s e3-4

55 "WEST P"/AU

1 "WEST P"/IN

L38 55 ("WEST P"/AU OR "WEST P"/IN)

=> e west paul/au,in

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|-----|--------|----------------------|
| E1 | 1 | WEST PATRICK L/AU |
| E2 | 1 | WEST PATRICK W J/AU |
| E3 | 15 --> | WEST PAUL/AU |
| E4 | 2 | WEST PAUL/IN |
| E5 | 1 | WEST PAUL A/AU |
| E6 | 5 | WEST PAUL D/AU |
| E7 | 6 | WEST PAUL E/AU |
| E8 | 1 | WEST PAUL E/IN |
| E9 | 1 | WEST PAUL GERARD/AU |
| E10 | 1 | WEST PAUL GERARD/IN |
| E11 | 1 | WEST PAUL MICHAEL/AU |
| E12 | 1 | WEST PAUL MICHAEL/IN |

=> s e3-4

15 "WEST PAUL"/AU
2 "WEST PAUL"/IN
L39 15 ("WEST PAUL"/AU OR "WEST PAUL"/IN)

=> s 139 or 138

L40 70 L39 OR L38

=> s 140 and (ir or infrared or infra red)

492857 IR

221359 INFRARED

3776 INFRA

326624 RED

3341 INFRA RED

(INFRA(W)RED)

L41 5 L40 AND (IR OR INFRARED OR INFRA RED)

=> d all 1-5

L41 ANSWER 1 OF 5 CA COPYRIGHT 2003 ACS

AN 137:52258 CA

TI FT-IR imaging spectroscopy of genetically modified bovine chondrocytes

AU Camacho, N. P.; West, P.; Griffith, M. H.; Warren, R. F.; Hidaka, C.

CS Laboratory for Soft Tissue Research, Research Division, Hospital for Special Surgery, New York, NY, 10021, USA

SO Materials Science & Engineering, C: Biomimetic and Supramolecular Systems (2001), C17(1-2), 3-9

CODEN: MSCEEE; ISSN: 0928-4931

PB Elsevier Science B.V.

DT Journal

LA English

CC 63-7 (Pharmaceuticals)

AB Repair of articular cartilage defects remains a challenging problem in orthopedic surgery. Although novel tissue engineering technologies have facilitated the synthesis of cartilage-like tissue for implantation into defect sites, questions persist as to how to best evaluate the integration of these matrixes into cartilage and to assess their capability for regeneration and repair of the tissue. In the current study, Fourier transform IR imaging spectroscopy (FT-IRI) was utilized to study compositional changes in genetically modified bovine chondrocytes. With this technique, it was possible to evaluate the integration of the newly formed matrix into the articular cartilage substrate, and the content and distribution of the collagen and proteoglycan components in the repair tissue compared to native articular cartilage. Bovine chondrocytes were treated with an adenovirus (Ad) vector encoding bone morphogenetic protein-7 (AdBMP-7), transplanted onto bovine cartilage explants in vitro and the matrix evaluated by FT-IRI after 3 wk of growth. Data were acquired from a 400.times.400-.mu.m region of a histol. specimen at 7-.mu.m spatial resoln. FT-IR images were created based on collagen and proteoglycan content. It was apparent from these images that the AdBMP-7-treated chondrocyte matrix produced significantly more proteoglycan compared to both naive chondrocyte matrix, and to native bovine articular cartilage. However, the distribution of proteoglycan was very heterogeneous. In contrast, there was significantly less type II collagen in both AdBMP-7 and in naive chondrocyte matrix compared to the articular cartilage substrate. Overall, the new information obtained by FT-IR imaging spectroscopy will facilitate in design of new materials for cartilage regeneration and repair.

ST adenovirus vector bone morphogenetic protein implant FTIR chondrocyte

IT Bone morphogenetic proteins

RL: BSU (Biological study, unclassified); DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(7, adenovirus (Ad) vector encoded; FT-IR imaging spectroscopy of genetically modified bovine chondrocytes)

IT Chondrocyte
Regeneration, animal
Viral vectors
(FT-IR imaging spectroscopy of genetically modified bovine chondrocytes)

IT Proteoglycans, formation (nonpreparative)
RL: FMU (Formation, unclassified); FORM (Formation, nonpreparative)
(FT-IR imaging spectroscopy of genetically modified bovine chondrocytes)

IT IR spectroscopy
(Fourier-transform; FT-IR imaging spectroscopy of genetically modified bovine chondrocytes)

IT Cartilage
(articular; FT-IR imaging spectroscopy of genetically modified bovine chondrocytes)

IT Prosthetic materials and Prosthetics
(implants; FT-IR imaging spectroscopy of genetically modified bovine chondrocytes)

IT Collagens, formation (nonpreparative)
RL: FMU (Formation, unclassified); FORM (Formation, nonpreparative)
(type II; FT-IR imaging spectroscopy of genetically modified bovine chondrocytes)

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

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L41 ANSWER 2 OF 5 CA COPYRIGHT 2003 ACS

AN 136:38553 CA

TI Polymers and their use in imagable products and image-forming methods

IN Kottmair, Eduard; Glatt, Hans-Horst; Hilgart, Stefan; West, Paul

PA Kodak Polychrome Graphics Co. Ltd., USA

SO PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM B41M005-36

ICS B41C001-10; G03F007-023

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 42, 74

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|-------|-------|-----------------|-------|
| ----- | ----- | ----- | ----- | ----- |

PI WO 2001094123 A1 20011213 WO 2001-US16716 20010522
 W: BR, JP
 RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
 PT, SE, TR
 US 6506533 B1 20030114 US 2000-589333 20000607
 EP 1289769 A1 20030312 EP 2001-935743 20010522
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, FI, CY, TR
 PRAI US 2000-589333 A 20000607
 WO 2001-US16716 W 20010522
 AB IR absorbing polymers useful in imagable products and the
 lithog. printing field comprise **infra-red** absorbing
 groups carried as pendent groups on a polymer backbone. Certain
infra-red absorbing groups may also act to insolubilize
 the polymer in a developer, until it is imagewise exposed to **infra**
-red radiation. The resulting heat renders the polymer sol. in
 the developer. Imagable products employing the **infra**-
red absorbing polymers may include pos. working lithog. printing
 plates.
 ST IR absorbing polymer imagable product lithog printing
 IT Phenolic resins, uses
 RL: PRP (Properties); TEM (Technical or engineered material use); USES
 (Uses)
 (Cellobond J 1002G; IR-absorbing polymers and their use in
 imagable products and image-forming methods)
 IT Cyanine dyes
 Lithographic plates
 Lithography
 (IR-absorbing polymers and their use in imagable products and
 image-forming methods)
 IT Dyes
 (IR-absorbing; IR-absorbing polymers and their use
 in imagable products and image-forming methods)
 IT Lithography
 (coatings; IR-absorbing polymers and their use in imagable
 products and image-forming methods)
 IT Rubber, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (cyclized, phenol-contg.; IR-absorbing polymers and their use
 in imagable products and image-forming methods)
 IT Polyethers, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (di-Me siloxane-, Byk 307, surfactant; IR-absorbing polymers
 and their use in imagable products and image-forming methods)
 IT Polysiloxanes, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (di-Me, polyether-, Byk 307, surfactant; IR-absorbing
 polymers and their use in imagable products and image-forming methods)
 IT Phenolic resins, uses
 RL: PRP (Properties); TEM (Technical or engineered material use); USES
 (Uses)
 (novolak, cresol-based; IR-absorbing polymers and their use
 in imagable products and image-forming methods)
 IT 9003-35-4, Phenol-formaldehyde resin
 RL: PRP (Properties); TEM (Technical or engineered material use); USES
 (Uses)
 (Cellobond J 1002G; IR-absorbing polymers and their use in
 imagable products and image-forming methods)
 IT 9011-14-7, PMMA 9039-25-2, Bakelite LB 6564 24979-70-2, Maruka Lyncur
 M 27029-76-1, PD 140A 36451-09-9D, reaction products with cresol
 resins 96913-05-2, Maruka Lyncur CBA 110123-09-6, Maruka Lyncur CHM
 380412-69-1, Bakelite LA 751 380412-70-4, Bakelite LA 6823
 RL: PRP (Properties); TEM (Technical or engineered material use); USES
 (Uses)
 (IR-absorbing polymers and their use in imagable products and

image-forming methods)

IT 9016-83-5, LB 744
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (LB 744; IR-absorbing polymers and their use in imagable products and image-forming methods)

IT 88969-31-7, Oxonol 595
 RL: NUU (Other use, unclassified); USES (Uses)
 (Oxonol 595; IR-absorbing polymers and their use in imagable products and image-forming methods)

IT 10213-79-3, Sodium metasilicate pentahydrate
 RL: NUU (Other use, unclassified); USES (Uses)
 (developer; IR-absorbing polymers and their use in imagable products and image-forming methods)

IT 199444-11-6, KF 654B-PINA 380414-14-2
 RL: NUU (Other use, unclassified); USES (Uses)
 (dye; IR-absorbing polymers and their use in imagable products and image-forming methods)

IT 7429-90-5, Aluminum, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (substrate; IR-absorbing polymers and their use in imagable products and image-forming methods)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
 (1) Horsell Graphic Industries Limited; WO 9901795 A 1999 CA
 (2) Horsell Plc; WO 9119227 A 1991 CA
 (3) Kodak Polychrome Graphics Llc; WO 9911458 A 1999 CA

L41 ANSWER 3 OF 5 CA COPYRIGHT 2003 ACS
 AN 134:190217 CA
 TI FTIR microscopic imaging of collagen and proteoglycan in bovine cartilage
 AU Camacho, Nancy P.; West, Paul; Torzilli, Peter A.; Mendelsohn, Richard
 CS Research Division, The Hospital for Special Surgery, New York, NY, 10021, USA
 SO Biopolymers (2000), Volume Date 2001, 62(1), 1-8
 CODEN: BIPMAA; ISSN: 0006-3525
 PB John Wiley & Sons, Inc.
 DT Journal
 LA English
 CC 9-5 (Biochemical Methods)
 Section cross-reference(s): 13, 14

AB Articular cartilage, a connective tissue that provides resistance to compressive forces during joint movements, has not been examd. in detail by conventional Fourier transform IR (FTIR) spectroscopy, microspectroscopy (FTIRM), or imaging (FTIRI). The current study reports FTIRM and FTIRI analyses of normal bovine cartilage and identifies the specific mol. components of cartilage that contribute to its IR spectrum. FTIRM data acquired through the superficial, middle, and deep zones of thin sections of bovine articular cartilage showed a variation in intensities of the absorbance bands that arise from the primary nonaq. components of cartilage, collagen, and proteoglycan (primarily aggrecan) and thus reflected the differences in quantity of these specific components. The spectra of mixts. of model compds., which had varying proportions of type II collagen and aggrecan, were analyzed to identify spectral markers that could be used to quant. analyze these components in cartilage. Collagen and aggrecan were then imaged by FTIRI based on markers found in the model compds. Polarization expts. were also performed to det. the spatial distribution of the collagen orientation in the different zones of cartilage. This study provides a framework in which complex pathol. changes in this heterogeneous tissue can be assessed by IR microscopic imaging.

ST FTIR microscopy imaging collagen proteoglycan; cartilage Fourier transform IR microscopy
 IT Cartilage

(FTIR microscopic imaging of collagen and proteoglycan in bovine cartilage)

IT Aggrecons
Collagens, analysis
Proteoglycans, analysis
RL: ANT (Analyte); ANST (Analytical study)
(FTIR microscopic imaging of collagen and proteoglycan in bovine cartilage)

IT IR microspectroscopy
(Fourier transform; FTIR microscopic imaging of collagen and proteoglycan in bovine cartilage)

IT Imaging
(IR, Fourier transform; FTIR microscopic imaging of collagen and proteoglycan in bovine cartilage)

IT Microscopy
(IR, Fourier-transform; FTIR microscopic imaging of collagen and proteoglycan in bovine cartilage)

IT Collagens, analysis
RL: ANT (Analyte); ANST (Analytical study)
(type II; FTIR microscopic imaging of collagen and proteoglycan in bovine cartilage)

RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

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- (29) Speer, D; Clin Orthop 1979, V139, P267

L41 ANSWER 4 OF 5 CA COPYRIGHT 2003 ACS

AN 108:197121 CA

TI Kinetics and bonding considerations -- a guide to new coordination polymer structures with examples using cobalt and zirconium

AU Archer, R. D.; Tramontano, V. J.; Wang, B.; West, P.

CS Dep. Chem., Univ. Massachusetts, Amherst, MA, 01003, USA

SO Conference on Coordination Chemistry (1987), 11th, 1-6

CODEN: PCCHDB; ISSN: 0139-9535

DT Journal

LA English

CC 78-7 (Inorganic Chemicals and Reactions)
 AB (ZrL)n (H4L = N,N',N'',N'''-tetrasalicylidene-3,3',4,4'-
 tetraaminobiphenyl) and {Co(S-leu)L'}n [leuH = leucine; H2L1 =
 3,3'-dithiobis(2,4-pentanedione)] were prepd. and characterized by gel
 permeation chromatog., NMR end group anal., viscosity measurements, and
 IR spectroscopy. The no.-av. mol. wts. are 10,000-20,000 for ZrL
 and 1.0 to 4.0, 40,000-50,000 for fractionated samples of Co(S-leu)L'.
 ST zirconium salicylideneaminobiphenyl polymer; cobalt leucinato
 thiobispentanedionato polymer; polymer coordination cobalt zirconium
 IT Polymerization
 (of zirconium salicylaldehyde complex with diaminobenzidine and cobalt
 acetylacetonato leucinato complex with disulfur dichloride)
 IT 90-02-8, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (condensation reaction of zirconium-coordinated, with diaminobenzidine)
 IT 65531-97-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (condensation reaction of, with diaminobenzidine)
 IT 91-95-2, 3,3'-Diaminobenzidine
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (condensation reaction of, with zirconium salicylaldehyde complex)
 IT 10025-67-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (polymn. reaction by, with cobalt acetylacetonato leucinato complex)
 IT 123-54-6, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (polymn. reaction of cobalt-coordinated, with disulfur dichloride)
 IT 17857-12-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (polymn. reaction of, with disulfur dichloride)
 IT 114354-76-6P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 IT 113986-74-6P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of polymeric)

L41 ANSWER 5 OF 5 CA COPYRIGHT 2003 ACS
 AN 88:42654 CA
 TI **Infrared** behavior of a gauge covariant approximation
 AU Delbourgo, R.; West, P.
 CS Dep. Phys., Univ. Tasmania, Hobart, Australia
 SO Physics Letters B (1977), 72B(1), 96-8
 CODEN: PYLBAJ; ISSN: 0370-2693
 DT Journal
 LA English
 CC 70-3 (Nuclear Phenomena)
 AB The IR behavior in scalar and fermion quantum electrodynamics is
 calcd. by using a gauge covariant approxn. scheme to the Dyson-Schwinger
 equations.
 ST IR gage quantum electrodynamics; field theory IR gage
 IT Quantum electrodynamics
 (in IR behavior of gage covariant approxn.)
 IT Field theory
 (gage, IR behavior of covariant approxn. in)

=> d his

(FILE 'HOME' ENTERED AT 16:12:39 ON 30 APR 2003)

FILE 'REGISTRY' ENTERED AT 16:12:51 ON 30 APR 2003

L1 12 S CARBOXYPHENOXYACETIC ACID
 L2 1 S HYDROQUINONE O O DIACETIC ACID
 L3 0 S CAROXY 0 ANISIC ACID

L4 0 S CARBOXY 0 ANISIC ACID
 L5 190 S CARBOXY AND ANISIC ACID
 L6 2719 S ANISIC ACID
 L7 1 S ANISIC ACID/CN
 L8 190 S CARBOXY AND ANISIC ACID
 L9 4 S RESORCINOL AND DIACETIC ACID
 L10 28918 S NAPHTHALENECARBOXYLIC ACID
 L11 6 S CARBOXYMETHYL AND THIO AND NAPHTHALENECARBOXYLIC ACID
 L12 0 S CARBOXYMETHYLTHIO ADJ BENZOIC ACID
 L13 18 S CARBOXYMETHYLTHIO AND BENZO?

FILE 'CA' ENTERED AT 16:23:05 ON 30 APR 2003
 S 101714-12-9/REG#

L14 FILE 'REGISTRY' ENTERED AT 16:23:09 ON 30 APR 2003
 1 S 101714-12-9/RN

L15 FILE 'CA' ENTERED AT 16:23:09 ON 30 APR 2003
 2 S L14
 L16 62628 S PHOTO? AND (IR OR INFRARED OR INFRA RED)
 L17 34 S L16 AND CARBOXYMETHYL

L18 FILE 'REGISTRY' ENTERED AT 16:26:23 ON 30 APR 2003
 0 S DIANISIDINE AND N AND TETRAACETIC ACID
 L19 0 S DIANISIDINE AND TETRAACETIC ACID
 L20 0 S DIANISIDINE AND ACETIC ACID
 L21 10 S DIANISIDINE AND ACID
 L22 41 S DIANISIDINE
 L23 7351 S N CARBOXYMETHYL AND GLYCINE
 L24 2193 S L23 AND PHENYL
 L25 28 S N CARBOXYMETHYL AND PHENYL GLYCINE
 L26 1 S 1147-65-5

L27 FILE 'CA' ENTERED AT 16:44:05 ON 30 APR 2003
 98 S L26
 L28 25 S L27 AND PHOTO?
 L29 1 S L28 AND (IR OR INFRARED OR INFRA RED)
 L30 24 S L28 NOT L29
 L31 565336 S IR OR INFRARED OR INFRA RED
 L32 954 S CARBOXYMETHYL AND L31
 L33 34 S L32 AND PHOTO?
 L34 0 S L33 AND LITHOGRAPH?
 L35 34 S L33 NOT L30
 E MUNNELLY H/IN
 L36 1 S E4
 E MUNNELLY H/AU
 L37 8 S E4-E6
 E WEST P/AU, IN
 L38 55 S E3-4
 E WEST PAUL/AU, IN
 L39 15 S E3-4
 L40 70 S L39 OR L38
 L41 5 S L40 AND (IR OR INFRARED OR INFRA RED)

=> s lithograph? and (ir or infrared or infra red)

34550 LITHOGRAPH?

492857 IR

221359 INFRARED

3776 INFRA

326624 RED

3341 INFRA RED

(INFRA(W) RED)

L42 1364 LITHOGRAPH? AND (IR OR INFRARED OR INFRA RED)

=> s l42 and photo?

1143616 PHOTO?
L43 827 L42 AND PHOTO?

=> s l43 and polymeriz?
323447 POLYMERIZ?
L44 67 L43 AND POLYMERIZ?

=> d 1

L44 ANSWER 1 OF 67 CA COPYRIGHT 2003 ACS
AN 138:245659 CA
TI Negative working **lithographic** printing plate master for digital
direct platemaking by laser
IN Taninaka, Hiromitsu
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2003084432 | A2 | 20030319 | JP 2001-273784 | 20010910 |
| | US 2003068575 | A1 | 20030410 | US 2002-236913 | 20020909 |
| PRAI | JP 2001-273784 | A | 20010910 | | |

=> d all

L44 ANSWER 1 OF 67 CA COPYRIGHT 2003 ACS
AN 138:245659 CA
TI Negative working **lithographic** printing plate master for digital
direct platemaking by laser
IN Taninaka, Hiromitsu
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-004
ICS G03F007-004; G03F007-00; G03F007-029
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2003084432 | A2 | 20030319 | JP 2001-273784 | 20010910 |
| | US 2003068575 | A1 | 20030410 | US 2002-236913 | 20020909 |
| PRAI | JP 2001-273784 | A | 20010910 | | |

AB The title printing plate master comprises on a support at least (A) an
IR-absorbing agent, (B) an onium salt, (C) a radical
polymerizable compd., (D) a binder polymer, and (E) an org. dye
(precursor) capable of changing its color toner upon light-exposure.
ST lithog printing plate master neg working digital direct platemaking
IT **Lithographic** plates
(neg.-working presensitized; neg. working lithog. printing plate master
for digital direct platemaking by laser)
IT **Photoimaging** materials
(**photopolymerizable**; neg. working lithog. printing plate
master for digital direct platemaking by laser)
IT 134127-48-3
RL: TEM (Technical or engineered material use); USES (Uses)
(**IR** absorbing agent; in **photosensitive** layer of
neg. working lithog. printing plate master for digital direct
platemarking by laser)

IT 90216-38-9, Allyl methacrylate-methacrylic acid copolymer
 RL: TEM (Technical or engineered material use); USES (Uses)
 (binder polymer; in **photosensitive** layer of neg. working
 lithog. printing plate master for digital direct platemaking by laser)

IT 29512-49-0, 3-Diethylamino-6-methyl-7-anilino-fluoran
 RL: TEM (Technical or engineered material use); USES (Uses)
 (leuco dye; in **photosensitive** layer of neg. working lithog.
 printing plate master for digital direct platemaking by laser)

IT 262612-33-9
 RL: TEM (Technical or engineered material use); USES (Uses)
 (onium salt; in **photosensitive** layer of neg. working lithog.
 printing plate master for digital direct platemaking by laser)

IT 29570-58-9, Dipentaerythritol hexaacrylate
 RL: TEM (Technical or engineered material use); USES (Uses)
 (radical **polymerizable** compd.; in **photosensitive**
 layer of neg. working lithog. printing plate master for digital direct
 platemaking by laser)

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(FILE 'HOME' ENTERED AT 16:12:39 ON 30 APR 2003)

FILE 'REGISTRY' ENTERED AT 16:12:51 ON 30 APR 2003

L1 12 S CARBOXYPHENOXYACETIC ACID
 L2 1 S HYDROQUINONE O O DIACETIC ACID
 L3 0 S CAROXY 0 ANISIC ACID
 L4 0 S CARBOXY 0 ANISIC ACID
 L5 190 S CARBOXY AND ANISIC ACID
 L6 2719 S ANISIC ACID
 L7 1 S ANISIC ACID/CN
 L8 190 S CARBOXY AND ANISIC ACID
 L9 4 S RESORCINOL AND DIACETIC ACID
 L10 28918 S NAPHTHALENECARBOXYLIC ACID
 L11 6 S CARBOXYMETHYL AND THIO AND NAPHTHALENECARBOXYLIC ACID
 L12 0 S CARBOXYMETHYLTHIO ADJ BENZOIC ACID
 L13 18 S CARBOXYMETHYLTHIO AND BENZO?

FILE 'CA' ENTERED AT 16:23:05 ON 30 APR 2003
 S 101714-12-9/REG#

FILE 'REGISTRY' ENTERED AT 16:23:09 ON 30 APR 2003

L14 1 S 101714-12-9/RN

FILE 'CA' ENTERED AT 16:23:09 ON 30 APR 2003

L15 2 S L14
 L16 62628 S PHOTO? AND (IR OR INFRARED OR INFRA RED)
 L17 34 S L16 AND CARBOXYMETHYL

FILE 'REGISTRY' ENTERED AT 16:26:23 ON 30 APR 2003

L18 0 S DIANISIDINE AND N AND TETRAACETIC ACID
 L19 0 S DIANISIDINE AND TETRAACETIC ACID
 L20 0 S DIANISIDINE AND ACETIC ACID
 L21 10 S DIANISIDINE AND ACID
 L22 41 S DIANISIDINE
 L23 7351 S N CARBOXYMETHYL AND GLYCINE
 L24 2193 S L23 AND PHENYL
 L25 28 S N CARBOXYMETHYL AND PHENYL GLYCINE
 L26 1 S 1147-65-5

FILE 'CA' ENTERED AT 16:44:05 ON 30 APR 2003

L27 98 S L26
 L28 25 S L27 AND PHOTO?
 L29 1 S L28 AND (IR OR INFRARED OR INFRA RED)
 L30 24 S L28 NOT L29

L31 565336 S IR OR INFRARED OR INFRA RED
 L32 954 S CARBOXYMETHYL AND L31
 L33 34 S L32 AND PHOTO?
 L34 0 S L33 AND LITHOGRAPH?
 L35 34 S L33 NOT L30
 E MUNNELLY H/IN
 L36 1 S E4
 E MUNNELLY H/AU
 L37 8 S E4-E6
 E WEST P/AU, IN
 L38 55 S E3-4
 E WEST PAUL/AU, IN
 L39 15 S E3-4
 L40 70 S L39 OR L38
 L41 5 S L40 AND (IR OR INFRARED OR INFRA RED)
 L42 1364 S LITHOGRAPH? AND (IR OR INFRARED OR INFRA RED)
 L43 827 S L42 AND PHOTO?
 L44 67 S L43 AND POLYMERIZ?

=> s carboxy and methyl and l44

62148 CARBOXY

818659 METHYL

L45 0 CARBOXY AND METHYL AND L44

=> s l43 and daylight

5525 DAYLIGHT

L46 1 L43 AND DAYLIGHT

=> d all

L46 ANSWER 1 OF 1 CA COPYRIGHT 2003 ACS
 AN 134:200564 CA
 TI **Photopolymerizable** composition containing specific dye for
 light-sensitive **lithographic** original plate
 IN Urano, Toshiyuki
 PA Mitsubishi Chemical Corporation, Japan
 SO PCT Int. Appl., 59 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 IC ICM G03F007-028
 ICS C08F002-48; G03F007-031; G03F007-00
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 42

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | WO 2001014931 | A1 | 20010301 | WO 2000-JP5588 | 20000821 |
| | W: DE, US | | | | |
| | JP 2002023361 | A2 | 20020123 | JP 2000-200400 | 20000703 |
| | JP 2002023362 | A2 | 20020123 | JP 2000-207841 | 20000710 |
| | JP 2002090989 | A2 | 20020327 | JP 2000-250764 | 20000822 |
| | US 2002114966 | A1 | 20020822 | US 2002-79408 | 20020222 |
| PRAI | JP 1999-235216 | A | 19990823 | | |
| | JP 2000-200400 | A | 20000703 | | |
| | JP 2000-207841 | A | 20000710 | | |
| | JP 2000-207842 | A | 20000710 | | |
| | WO 2000-JP5588 | A1 | 20000821 | | |

OS MARPAT 134:200564

AB The **photopolymerizable** compn. for a light-sensitive lithog.
 original plate comprises a layer of contg.: (A) An ethylenic compd. (B) a
 dye selected from the group consisting of the dyes, which each has a basic
 structure comprising heteroatoms bonded to each other through a
 polymethine chain and has a specific substituent on the polymethine chain

or on another basic structure; and (C) A photopolymn. initiator on a support. The photopolymerizable compn. contg. the dye is highly sensitive to light not only in the visible region but in long-wavelength regions including the near IR region and not sensitive to light in the UV region and shows the excellent handling characteristics under daylight fluorescent lamps.

ST photopolymerizable compn lithog original plate

IT Dyes

(dye in photopolymerizable compn. for
photopolymerizable lithog. original plate)

IT Light-sensitive materials

Lithographic plates

(photopolymerizable compn. for photopolymerizable
lithog. original plate)

IT 328063-81-6 328063-88-3 328063-95-2 328064-01-3 328064-07-9
328064-13-7 328064-16-0 328064-20-6

RL: TEM (Technical or engineered material use); USES (Uses)

(dye in photopolymerizable compn. for
photopolymerizable lithog. original plate)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

(1) Fuji Photo Film Co Ltd; JP 11119421 A 1999 CA

(2) Konica Corporation; JP 08114916 A 1996 CA

(3) Mitsubishi Chemical Corporation; JP 11119428 A 1999 CA

=> d his

(FILE 'HOME' ENTERED AT 16:12:39 ON 30 APR 2003)

FILE 'REGISTRY' ENTERED AT 16:12:51 ON 30 APR 2003

L1 12 S CARBOXYPHENOXYACETIC ACID
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L5 190 S CARBOXY AND ANISIC ACID
L6 2719 S ANISIC ACID
L7 1 S ANISIC ACID/CN
L8 190 S CARBOXY AND ANISIC ACID
L9 4 S RESORCINOL AND DIACETIC ACID
L10 28918 S NAPHTHALENECARBOXYLIC ACID
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L12 0 S CARBOXYMETHYLTHIO ADJ BENZOIC ACID
L13 18 S CARBOXYMETHYLTHIO AND BENZO?

FILE 'CA' ENTERED AT 16:23:05 ON 30 APR 2003
S 101714-12-9/REG#

FILE 'REGISTRY' ENTERED AT 16:23:09 ON 30 APR 2003
L14 1 S 101714-12-9/RN

FILE 'CA' ENTERED AT 16:23:09 ON 30 APR 2003
L15 2 S L14
L16 62628 S PHOTO? AND (IR OR INFRARED OR INFRA RED)
L17 34 S L16 AND CARBOXYMETHYL

FILE 'REGISTRY' ENTERED AT 16:26:23 ON 30 APR 2003
L18 0 S DIANISIDINE AND N AND TETRAACETIC ACID
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L20 0 S DIANISIDINE AND ACETIC ACID
L21 10 S DIANISIDINE AND ACID
L22 41 S DIANISIDINE
L23 7351 S N CARBOXYMETHYL AND GLYCINE
L24 2193 S L23 AND PHENYL
L25 28 S N CARBOXYMETHYL AND PHENYL GLYCINE

L26 1 S 1147-65-5

FILE 'CA' ENTERED AT 16:44:05 ON 30 APR 2003

L27 98 S L26
L28 25 S L27 AND PHOTO?
L29 1 S L28 AND (IR OR INFRARED OR INFRA RED)
L30 24 S L28 NOT L29
L31 565336 S IR OR INFRARED OR INFRA RED
L32 954 S CARBOXYMETHYL AND L31
L33 34 S L32 AND PHOTO?
L34 0 S L33 AND LITHOGRAPH?
L35 34 S L33 NOT L30
E MUNNELLY H/IN
L36 1 S E4
E MUNNELLY H/AU
L37 8 S E4-E6
E WEST P/AU, IN
L38 55 S E3-4
E WEST PAUL/AU, IN
L39 15 S E3-4
L40 70 S L39 OR L38
L41 5 S L40 AND (IR OR INFRARED OR INFRA RED)
L42 1364 S LITHOGRAPH? AND (IR OR INFRARED OR INFRA RED)
L43 827 S L42 AND PHOTO?
L44 67 S L43 AND POLYMERIZ?
L45 0 S CARBOXY AND METHYL AND L44
L46 1 S L43 AND DAYLIGHT

=> s l43 and day light

443337 DAY

780319 LIGHT

339 DAY LIGHT

(DAY(W) LIGHT)

L47 0 L43 AND DAY LIGHT

=> s l43 and photopolym?

22404 PHOTOPOLYM?

L48 78 L43 AND PHOTOPOLYM?

=> d all 1-78

L48 ANSWER 1 OF 78 CA COPYRIGHT 2003 ACS

AN 138:245659 CA

TI Negative working lithographic printing plate master for digital
direct platemaking by laser

IN Taninaka, Hiromitsu

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-004

ICS G03F007-004; G03F007-00; G03F007-029

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2003084432 | A2 | 20030319 | JP 2001-273784 | 20010910 |
| | US 2003068575 | A1 | 20030410 | US 2002-236913 | 20020909 |
| PRAI | JP 2001-273784 | A | 20010910 | | |

AB The title printing plate master comprises on a support at least (A) an
IR-absorbing agent, (B) an onium salt, (C) a radical polymerizable
compd., (D) a binder polymer, and (E) an org. dye (precursor) capable of
changing its color toner upon light-exposure.

ST lithog printing plate master neg working digital direct platemaking
 IT **Lithographic plates**
 (neg.-working presensitized; neg. working lithog. printing plate master for digital direct platemaking by laser)
 IT **Photoimaging materials**
 (photopolymerizable; neg. working lithog. printing plate master for digital direct platemaking by laser)
 IT 134127-48-3
 RL: TEM (Technical or engineered material use); USES (Uses)
 (IR absorbing agent; in **photosensitive** layer of neg. working lithog. printing plate master for digital direct platemaking by laser)
 IT 90216-38-9, Allyl methacrylate-methacrylic acid copolymer
 RL: TEM (Technical or engineered material use); USES (Uses)
 (binder polymer; in **photosensitive** layer of neg. working lithog. printing plate master for digital direct platemaking by laser)
 IT 29512-49-0, 3-Diethylamino-6-methyl-7-anilino-fluoran
 RL: TEM (Technical or engineered material use); USES (Uses)
 (leuco dye; in **photosensitive** layer of neg. working lithog. printing plate master for digital direct platemaking by laser)
 IT 262612-33-9
 RL: TEM (Technical or engineered material use); USES (Uses)
 (onium salt; in **photosensitive** layer of neg. working lithog. printing plate master for digital direct platemaking by laser)
 IT 29570-58-9, Dipentaerythritol hexaacrylate
 RL: TEM (Technical or engineered material use); USES (Uses)
 (radical polymerizable compd.; in **photosensitive** layer of neg. working lithog. printing plate master for digital direct platemaking by laser)

L48 ANSWER 2 OF 78 CA COPYRIGHT 2003 ACS

AN 138:245658 CA

TI Positive-working **lithographic** printing plate master for IR laser direct digital platemaking

IN Nakamura, Ippei; Oda, Akio

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 33 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-00

ICS G03F007-004; G03F007-039; G03F007-40

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2003084428 | A2 | 20030319 | JP 2001-277996 | 20010913 |
| PRAI | JP 2001-277996 | | 20010913 | | |

AB The title printing plate master comprises on a support (A) a water-insol., alk.-sol. resin, (B) an IR absorbing agent, and (C) an ethylenic polymerizable compd. 0.1-20 %. The platemaking is carried out by an IR laser exposure, an alk.-development, and a heat treatment. The printing plate shows excellent printability.

ST lithog printing plate master pos working IR laser platemaking

IT **Photoimaging materials**

(photopolymerizable; pos.-working lithog. printing plate master for IR laser direct digital platemaking)

IT **Lithographic plates**

(presensitized, pos.-working; pos.-working lithog. printing plate master for IR laser direct digital platemaking)

IT 134127-48-3 449762-40-7

RL: TEM (Technical or engineered material use); USES (Uses)

(IR absorbing agent; in **photosensitive** layer of pos.-working lithog. printing plate master for IR laser

direct digital platemaking)
IT 3524-66-1, NK Ester TMM 360 4986-89-4, NK Ester A TMMT 25852-49-7, NK Ester 9PG

RL: TEM (Technical or engineered material use); USES (Uses)
(ethylenic polymerizable compd.; in **photosensitive** layer of pos.-working lithog. printing plate master for IR laser direct digital platemaking)

IT 141634-00-6, Acrylonitrile-methyl methacrylate-N-(p-aminosulfonylphenyl)methacrylamide copolymer

RL: TEM (Technical or engineered material use); USES (Uses)
(water-insol., alk.-sol. resin; in **photosensitive** layer of pos.-working lithog. printing plate master for IR laser direct digital platemaking)

L48 ANSWER 3 OF 78 CA COPYRIGHT 2003 ACS

AN 138:245657 CA

TI Heat mode image recording material and positive-working lithographic printing plate master for IR laser digital direct platemaking

IN Nakamura, Ippei; Mitsumoto, Tomoyoshi

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 23 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-00

ICS G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2003084427 | A2 | 20030319 | JP 2001-275055 | 20010911 |
| PRAI | JP 2001-275055 | | 20010911 | | |

AB A heat mode image recording material comprises an IR absorbing agent and .gtoreq.2 kinds of waxes and is imageable by an IR laser exposure. The printing plate master comprises on a support an IR-sensitive recording layer comprising (A) a water-insol., alk.-sol. resin, (B) an IR absorbing agent, and (C) .gtoreq.2 kinds of waxes. The printing plate master shows excellent scratch resistance.

ST heat mode image recording material IR laser wax; lithog printing plate pos working IR laser platemaking wax

IT **Photoimaging** materials

(**photopolymerizable**; heat mode image recording material and pos.-working lithog. printing plate master for IR laser digital direct platemaking)

IT **Lithographic** plates

(presensitized, pos.-working; heat mode image recording material and pos.-working lithog. printing plate master for IR laser digital direct platemaking)

IT 134127-48-3 449762-40-7

RL: TEM (Technical or engineered material use); USES (Uses)

(IR absorbing agent; in IR-sensitive recording layer of pos.-working lithog. printing plate master for IR laser digital direct platemaking)

IT 5303-25-3P, Dodecyl stearate 42232-29-1P, Dodecyl palmitate

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(wax; in IR-sensitive recording layer of pos.-working lithog. printing plate master for IR laser digital direct platemaking)

IT 123-28-4, Sumilizer TPL-R 693-36-7, Sumilizer TPS 16545-54-3, Sumilizer TPM

RL: TEM (Technical or engineered material use); USES (Uses)

(wax; in IR-sensitive recording layer of pos.-working lithog.
printing plate master for IR laser digital direct
platemaking)

L48 ANSWER 4 OF 78 CA COPYRIGHT 2003 ACS

AN 138:245647 CA

TI Negative-working **lithographic** printing plate master suitable for
direct laser platemaking

IN Taninaka, Hiromitsu

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 22 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-11

ICS B41N001-14; G03F007-00; G03F007-004; G03F007-027; G03F007-029;
G03F007-032

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | JP 2003084442 | A2 | 20030319 | JP 2001-273885 | 20010910 |
| PRAI | JP 2001-273885 | | 20010910 | | |
| AB | The title printing plate master comprises on a support a photosensitive layer comprised of (A) an IR absorbing agent, (B) an onium salt, (C) a radical polymerizable compd., and (D) a binder polymer, and an overcoat layer comprising (E) a water-sol. cellulose. | | | | |
| ST | lithog printing plate master neg working direct laser platemaking | | | | |
| IT | Lithographic plates (neg.-working presensitized; neg.-working lithog. printing plate master suitable for direct laser platemaking) | | | | |
| IT | Photoimaging materials (photopolymerizable ; neg.-working lithog. printing plate master suitable for direct laser platemaking) | | | | |
| IT | 134127-48-3 RL: TEM (Technical or engineered material use); USES (Uses) (IR absorbing agent; in photosensitive layer of neg.-working lithog. printing plate master suitable for direct laser platemaking) | | | | |
| IT | 90216-38-9, Allyl methacrylate-methacrylic acid copolymer RL: TEM (Technical or engineered material use); USES (Uses) (binder polymer; in photosensitive layer of neg.-working lithog. printing plate master suitable for direct laser platemaking) | | | | |
| IT | 262612-33-9 RL: TEM (Technical or engineered material use); USES (Uses) (onium salt; in photosensitive layer of neg.-working lithog. printing plate master suitable for direct laser platemaking) | | | | |
| IT | 29570-58-9, Dipentaerythritol hexaacrylate RL: TEM (Technical or engineered material use); USES (Uses) (polymerizable compd.; in photosensitive layer of neg.-working lithog. printing plate master suitable for direct laser platemaking) | | | | |
| IT | 9004-32-4, Cellogen 5A RL: TEM (Technical or engineered material use); USES (Uses) (water-sol. cellulose; in overcoat layer of neg.-working lithog. printing plate master suitable for direct laser platemaking) | | | | |

L48 ANSWER 5 OF 78 CA COPYRIGHT 2003 ACS

AN 138:245631 CA

TI **Photopolymerizable** composition

IN Yanaka, Hiromitsu

PA Fuji Photo Film Co., Ltd., Japan

SO Eur. Pat. Appl., 30 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM G03F007-029
ICS B41C001-10

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35, 38

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|---|---|--|---|
| PI | EP 1291718 | A2 | 20030312 | EP 2002-20417 | 20020911 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK | | | | |
| PRAI | JP 2001-275072 | A | 20010911 | | |
| AB | The present invention relates to a photopolymerizable compn. for neg.-working lithog. printing plate which comprises (A) a polymerizable compd. having at least one radical-polymerizable ethylenically unsatd. double bond per mol. and a cohesive energy d. of not smaller than 500 J/cm ³ , (B) a radical polymn. initiator and (C) a binder polymer and cures when exposed to light. | | | | |
| ST | lithog printing plate photopolymerizable compn | | | | |
| IT | Lithographic plates (neg.-working presensitized; photopolymerizable compn. for) | | | | |
| IT | Photoimaging materials (photopolymerizable ; photopolymerizable compn. for neg.-working lithog. printing plates) | | | | |
| IT | 385843-65-2 | 501332-52-1 | RL: TEM (Technical or engineered material use); USES (Uses) (IR absorbent; photopolymerizable compn. for neg.-working lithog. printing plates) | | |
| IT | 501332-57-6P | 501332-58-7P | RL: POF (Polymer in formulation); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses) (binder; photopolymerizable compn. for neg.-working lithog. printing plates) | | |
| IT | 90216-38-9 | Allyl methacrylate-methacrylic acid copolymer | 501347-46-2 | RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (binder; photopolymerizable compn. for neg.-working lithog. printing plates) | |
| IT | 109479-99-4 | 168203-58-5 | 501332-54-3 | 501332-56-5 | RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (photopolymerizable compn. for neg.-working lithog. printing plates) |
| IT | 377780-83-1 | RL: CAT (Catalyst use); USES (Uses) (polymn. initiator; photopolymerizable compn. for neg.-working lithog. printing plates) | | | |

L48 ANSWER 6 OF 78 CA COPYRIGHT 2003 ACS

AN 138:137956 CA

TI Tailor-made polymers for laser ablation

AU Lippert, Thomas; David, Christian; Hauer, Marc; Phipps, Claude; Wokaun, Alexander

CS Paul Scherrer Institut, Villigen PSI, 5232, Switz.

SO Reza Kenkyu (2001), 29(11), 734-738
CODEN: REKEDA; ISSN: 0387-0200

PB Reza Gakkai

DT Journal

LA English

CC 37-5 (Plastics Manufacture and Processing)
Section cross-reference(s): 73

AB **Photopolymers** based on triazene-groups were designed for UV

laser ablation. The tested triazene-polymer reveals a low threshold fluence and unusually high ablation rates at low and high fluences. The polymer decomp. into gaseous products, resulting in clean ablation structures without surface contaminations. The triazene-polymer was also tested for two different applications at two different irradian. wavelengths, i.e. in the UV (308 nm) and in the near-IR (935 nm). Diffractive gray tone phase masks optimized for laser ablation were applied to fabricate microoptical elements. The triazene-polymer reveals also superior properties for applications in the near-IR. Near-IR irradian. is used to create a plasma which could be used as thruster for microsatellites. The carbon-doped triazene-polymer shows higher values of the momentum coupling coeff. and specific impulse than a com. polymer. The well-defined threshold for the max. momentum coupling coeff. was only obsd. for the designed polymer.

- ST triazene **photopolymer** laser ablation microoptic phase mask
plasma thruster
- IT Carbon black, uses
RL: MOA (Modifier or additive use); USES (Uses)
(Ketjen Black, triazene **photopolymer** doped with; design and properties of triazene **photopolymer** for laser ablation)
- IT Laser ablation
Optical materials
Photomasks (lithographic masks)
Polymer morphology
(design and properties of triazene **photopolymer** for laser ablation)
- IT Polyethers, properties
RL: CPS (Chemical process); DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process); USES (Uses)
(polyamine-, carbon black-doped; design and properties of triazene **photopolymer** for laser ablation)
- IT Polyamines
RL: CPS (Chemical process); DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process); USES (Uses)
(polyether-, carbon black-doped; design and properties of triazene **photopolymer** for laser ablation)
- IT 148030-84-6
RL: CPS (Chemical process); DEV (Device component use); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); PROC (Process); USES (Uses)
(carbon black-doped; design and properties of triazene **photopolymer** for laser ablation)

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
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Journal, in press 2001

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L48 ANSWER 7 OF 78 CA COPYRIGHT 2003 ACS

AN 138:63872 CA

TI Method for **lithographic** printing using printing plates
regeneratable on printer rollers

IN Urano, Toshiyoshi; Uematsu, Takuya; Mizuho, Yuji; Tabuchi, Mitsuru
PA Mitsubishi Chemical Corp., Japan; Mitsubishi Heavy Industries, Ltd.
SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B41F007-02

ICS G03F007-00; G03F007-16; G03F007-20

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2003001789 | A2 | 20030108 | JP 2001-190836 | 20010625 |
| PRAI | JP 2001-190836 | | 20010625 | | |

AB The process is carried out using a printer which comprises (A) a printer roller onto which **photosensitive** layer is formed by supplying a **photopolymerizable** compn., (B) a laser beam source for exposure of the **photosensitive** layer, (C) a means for formation of images on the printing plate layer, (D) a means for printing by feeding inks and wetting water onto the roller, and (E) a means for removing the image-formed printing plate layer after the printing process is finished. Prepn. and removal of the printing plate are both carried out within the printing app. Preferably, the **photopolymerizable** compn. is sensitive against near IR laser of 800-1300 nm or of blue-purple laser of 400-430 nm.

ST lithog app printing plate prepn removal; printing plate regenerative lithog app

IT **Lithographic** plates

(lithog. printers with in-printer prepn. and removal of printing plates for their regeneration)

IT **Photoimaging** materials

(**photopolymerizable**; lithog. printers with in-printer prepn. and removal of printing plates for their regeneration)

IT 29570-58-9 32435-46-4 56361-55-8 60506-81-2 77001-81-1

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(**photopolymerizable** compn.; lithog. printers with in-printer prepn. and removal of printing plates for their regeneration)

L48 ANSWER 8 OF 78 CA COPYRIGHT 2003 ACS

AN 137:391108 CA

TI Method for image formation with IR on **lithographic**
printing plate precursor under humidity controlled conditions

IN Okamoto, Hideaki

PA Mitsubishi Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DT Patent
LA Japanese
IC ICM G03F007-11
ICS B41N001-14; G03B027-32; G03F007-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| | ----- | --- | ----- | ----- | ----- |
| PI | JP 2002341547 | A2 | 20021127 | JP 2001-144597 | 20010515 |
| PRAI | JP 2001-144597 | | 20010515 | | |
| AB | The title method for image formation on a light-sensitive image-forming material, which has an IR-sensitive layer made of a photopolymerizable compn., and an oxygen-blocking layer contg. a water-sol. polymer on a support includes the steps of handling the image-forming material before and after the explosion under yellow or white light under .ltoreq.10 % relative humidity. The method provides the good image quality. | | | | |
| ST | image IR humidity controlled lithog printing plate precursor | | | | |
| IT | Light-sensitive materials (IR-sensitive; method for image formation with IR on lithog. printing plate precursor) | | | | |
| IT | Humidity Lithographic plates (method for image formation with IR on lithog. printing plate precursor) | | | | |
| IT | Photoimaging materials (photopolymerizable ; method for image formation with IR on lithog. printing plate precursor) | | | | |

L48 ANSWER 9 OF 78 CA COPYRIGHT 2003 ACS

AN 137:286466 CA

TI IR laser-sensitive lithographic plate characterized by support having smut

IN Okamoto, Hideaki

PA Mitsubishi Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B41N001-08

ICS B41N003-03; B41N003-04; C25F003-04; G03F007-00; G03F007-038; G03F007-09

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38, 56

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| | ----- | --- | ----- | ----- | ----- |
| PI | JP 2002283752 | A2 | 20021003 | JP 2001-82735 | 20010322 |
| PRAI | JP 2001-82735 | | 20010322 | | |
| AB | The lithog. plate has a photopolymerizable compn., which is exposed to or scanned by IR laser, on a support having 0.2-6.0 mg/dm2 smut on the surface. Preferably, the photopolymerizable compn. contains a polymer binder substituted with addn.-polymerizable ethylenic unsatd. groups on branches. The plate shows enhanced adhesion between the support and the photosensitive layer due to hydrophilicity of the support owing to the smut. The lithog. plate shows prevention of banding and prevention of scattering of the photopolymerizable compn. under IR laser irradiation. | | | | |
| ST | IR laser sensitive lithog plate; aluminum support smut laser lithog plate; adhesion support photosensitive layer lithog plate | | | | |
| IT | IR lasers Lithographic plates | | | | |

(IR laser-sensitive lithog. plate showing enhanced adhesion between **photosensitive** layer and support having smut)

IT Anodization
(IR laser-sensitive lithog. plate showing enhanced adhesion between **photosensitive** layer and support with smut formed before)

IT Etching
(electrochem., surface roughening; IR laser-sensitive lithog. plate showing enhanced adhesion between **photosensitive** layer and support with smut formed after)

IT Scale (deposits)
(smut; IR laser-sensitive lithog. plate showing enhanced adhesion between **photosensitive** layer and support having smut)

IT 464924-19-4P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(binder; in IR laser-sensitive lithog. plate showing enhanced adhesion between **photosensitive** layer and support having smut)

IT 32435-46-4 64401-02-1 77001-81-1
RL: TEM (Technical or engineered material use); USES (Uses)
(in IR laser-sensitive lithog. plate showing enhanced adhesion between **photosensitive** layer and support having smut)

IT 3584-23-4
RL: CAT (Catalyst use); USES (Uses)
(**photopolymn.** initiator; in IR laser-sensitive lithog. plate showing enhanced adhesion between **photosensitive** layer and support having smut)

IT 425380-40-1
RL: CAT (Catalyst use); USES (Uses)
(sensitizer; in IR laser-sensitive lithog. plate showing enhanced adhesion between **photosensitive** layer and support having smut)

IT 7429-90-5, Aluminum, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(support; IR laser-sensitive lithog. plate showing enhanced adhesion between **photosensitive** layer and support having smut)

L48 ANSWER 10 OF 78 CA COPYRIGHT 2003 ACS

AN 137:286465 CA

TI IR laser-sensitive lithographic plate characterized by optical reflection of support

IN Okamoto, Hideaki

PA Mitsubishi Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B41N001-08

ICS B41N003-03; B41N003-04; C25D011-04; C25D011-16; G03F007-00; G03F007-09

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38, 56

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 2002283751 | A2 | 20021003 | JP 2001-82734 | 20010322 |
| PRAI | JP 2001-82734 | | 20010322 | | |

AB The lithog. plate has a **photopolymerizable** compn., which is exposed to or scanned by IR laser, formed on a support having optical reflection d. .gtoreq.0.30. Alternatively, the support is that

obtained from an Al plate by surface-roughening and anodizing wherein A - B .ltoreq. 0.1 is satisfied (A = optical reflection d. just after surface roughening; B = optical reflection d. after anodization). Preferably, the **photopolymerizable** compn. contains a polymer binder substituted with addn.-polymerizable ethylenic unsatd. groups on branches. The lithog. plate shows prevention of banding and prevention of scattering of the **photosensitive** compn. under IR laser irradiation.

- ST IR laser sensitive lithog plate support; optical reflection density support lithog plate; aluminum surface roughening lithog plate support; anodized aluminum support optical density regulation
- IT IR lasers
Lithographic plates
(IR laser-sensitive lithog. plate supported by substrate with regulated optical reflection d.)
- IT Anodization
(IR laser-sensitive lithog. plate supported by substrate with regulated optical reflection d. after)
- IT Etching
(electrochem., for surface roughening; IR laser-sensitive lithog. plate supported by substrate with regulated optical reflection d. after)
- IT 7429-90-5, Aluminum, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(IR laser-sensitive lithog. plate supported by substrate with regulated optical reflection d.)
- IT 464924-19-4P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(binder; in IR laser-sensitive lithog. plate supported by substrate with regulated optical reflection d.)
- IT 32435-46-4 64401-02-1 77001-81-1
RL: TEM (Technical or engineered material use); USES (Uses)
(in IR laser-sensitive lithog. plate supported by substrate with regulated optical reflection d.)
- IT 3584-23-4
RL: CAT (Catalyst use); USES (Uses)
(**photopolymn.** initiator; in IR laser-sensitive lithog. plate supported by substrate with regulated optical reflection d.)
- IT 425380-40-1
RL: CAT (Catalyst use); USES (Uses)
(sensitizer; in IR laser-sensitive lithog. plate supported by substrate with regulated optical reflection d.)

L48 ANSWER 11 OF 78 CA COPYRIGHT 2003 ACS

AN 137:270576 CA

TI **photosensitive** lithog. printing plate using IR laser

IN Okamoto, Hideaki

PA Mitsubishi Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-26

ICS C08F002-44; C08F002-50; C08F291-00; G03F007-00; G03F007-029; G03F007-031; G03F007-40

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 2002278080 | A2 | 20020927 | JP 2001-77681 | 20010319 |
| PRAI | JP 2001-77681 | | 20010319 | | |

AB Title plate with no picture unevenness and having good washing resistance comprises a **photopolymerizable** component layer on a support

layer, wherein the **photosensitive** layer has a step clear .ltoreq.6 after 650 nm-1300 nm multi-beam light exposure and image development. The **photosensitive** layer comprises an ethylene type unsatd. compd., a **photosensitizing** compd. capable of absorbing 650-1300 nm light, a **photopolymer**. catalyst, and a polymer material.

ST IR laser **photosensitive** lithog printing plate

IT IR lasers

Lithographic plates

(**photosensitive** lithog. printing plate using IR laser)

IT 3584-23-4, 2-(p-Methoxyphenyl)-4,6-bis(trichloromethyl)-s-triazine 425380-40-1

RL: CAT (Catalyst use); USES (Uses)

(**photosensitive** lithog. printing plate using IR laser)

IT 132011-04-2 462109-31-5

RL: TEM (Technical or engineered material use); USES (Uses)

(**photosensitive** lithog. printing plate using IR laser)

L48 ANSWER 12 OF 78 CA COPYRIGHT 2003 ACS

AN 137:270569 CA

TI Method for **lithographic** printing plate imaging

IN Okamoto, Hideaki

PA Mitsubishi Chemical Corporation, Japan

SO Eur. Pat. Appl., 24 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM B41C001-10

ICS B41M005-36

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | EP 1243412 | A1 | 20020925 | EP 2002-5870 | 20020314 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| | JP 2002278088 | A2 | 20020927 | JP 2001-77682 | 20010319 |
| | US 2002177071 | A1 | 20021128 | US 2002-98598 | 20020318 |
| PRAI | JP 2001-77682 | A | 20010319 | | |

AB Disclosed is a method for lithog. printing plate imaging, which comprises subjecting a **photosensitive** layer of a **photosensitive** lithog. printing plate having a **photosensitive** layer comprising a **photopolymerizable** compn. formed on a support surface to scanning exposure with a laser light having a wavelength in a range of from 650 to 1,300 nm, developing an image, and then further subjecting the **photosensitive** lithog. printing plate having the developed image to whole image exposure with a light exposure energy of 1-70 times larger than the light exposure energy at the time of the laser light scanning exposure. According to the present invention, a sufficient image strength with satisfactory printing resistance and excellent reproducibility of an image can be obtained.

ST lithog printing plate IR imaging method

IT Lithographic plates

(method for lithog. printing plate imaging)

IT 204141-64-0, 3,4-Epoxy cyclohexylmethyl acrylate-methyl methacrylate copolymer

RL: TEM (Technical or engineered material use); USES (Uses)

(binder; method for lithog. printing plate imaging)

IT 32435-46-4 56361-55-8 77001-81-1

RL: TEM (Technical or engineered material use); USES (Uses)

(**photopolymerizable** material; method for lithog. printing plate imaging)
IT 3584-23-4, 2-(p-Methoxyphenyl)-4,6-bis(trichloromethyl)-s-triazine
RL: CAT (Catalyst use); TEM (Technical or engineered material use); USES (Uses)

(**photopolymn.** initiator; method for lithog. printing plate imaging)
IT 425380-40-1
RL: TEM (Technical or engineered material use); USES (Uses)
(sensitizing dye; method for lithog. printing plate imaging)

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

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- (2) Anon; PATENT ABSTRACTS OF JAPAN 2000, V2000(06)
- (3) Anon; PATENT ABSTRACTS OF JAPAN 2001, V2000(12)
- (4) Anon; PATENT ABSTRACTS OF JAPAN 2001, V2000(23)
- (5) Aoyama, T; US 6010824 A 2000 CA
- (6) Fuji Photo Film Co Ltd; JP 2000066416 A 2000 CA
- (7) Fuji Photo Film Co Ltd; JP 2000089478 A 2000 CA
- (8) Fuji Photo Film Co Ltd; JP 2000267266 A 2000 CA
- (9) Fuji Photo Film Co Ltd; JP 2001154374 A 2001 CA
- (10) Mitsubishi Chem Corp; JP 11265069 A 1999 CA
- (11) Mitsubishi Chem Corp; JP 2001042546 A 2001 CA

L48 ANSWER 13 OF 78 CA COPYRIGHT 2003 ACS

AN 137:224178 CA

TI Negative working **lithographic** printing plate master suitable for direct digital platemaking by IR laser

IN Aoshima, Keitaro

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 22 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-00

ICS B41N001-14; G03F007-11

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 2002258467 | A2 | 20020911 | JP 2001-61475 | 20010306 |
| | US 2002189476 | A1 | 20021219 | US 2002-87834 | 20020305 |
| PRAI | JP 2001-61475 | A | 20010306 | | |

AB The title lithog. printing plate master comprises a support, an alkali-developable **photosensitive** layer contg. a **photothermal** conversion material and crosslinkable/polymerizable compd., and an overcoat layer contg. a hydrophobic, alkali-sol. polymer. The printing plate master shows improved IR laser sensitivity, suppressed ablation of the **photosensitive** layer, and improved ink reception.

ST lithog printing plate master neg working direct digital platemaking; IR laser direct digital platemaking lithog printing plate master

IT Fluoropolymers, uses

RL: DEV (Device component use); USES (Uses)

(in alkali-developable **photosensitive** layer of neg. working lithog. printing plate master suitable for direct digital platemaking by IR laser)

IT **Lithographic** plates

(neg. working lithog. printing plate master suitable for direct digital platemaking by IR laser)

IT **Photoimaging** materials

(**photopolymerizable**; neg. working lithog. printing plate master suitable for direct digital platemaking by IR laser)

IT 134127-48-3

RL: DEV (Device component use); USES (Uses)
 (IR absorber; in alkali-developable **photosensitive** layer of neg. working lithog. printing plate master suitable for direct digital platemaking by IR laser)

IT 28854-56-0, Styrene-p-vinylbenzoic acid copolymer 457625-40-0, Ethyl methacrylate-monoacryloyloxyethyl succinate copolymer
 RL: DEV (Device component use); USES (Uses)
 (hydrophobic alkali-sol.; in overcoat layer of neg. working lithog. printing plate master suitable for direct digital platemaking by IR laser)

IT 85-43-8, Tetrahydrophthalic acid anhydride 104-15-4, p-Toluene sulfonic acid, uses 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 29570-58-9, Dipentaerythritol hexaacrylate 90216-38-9, Allyl methacrylate-methacrylic acid copolymer 207793-01-9
 RL: DEV (Device component use); USES (Uses)
 (in alkali-developable **photosensitive** layer of neg. working lithog. printing plate master suitable for direct digital platemaking by IR laser)

IT 124996-93-6P, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-ethyl methacrylate copolymer
 RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (in alkali-developable **photosensitive** layer of neg. working lithog. printing plate master suitable for direct digital platemaking by IR laser)

IT 19600-49-8, Triphenylsulfonium acetate
 RL: DEV (Device component use); USES (Uses)
 (onium salt; in alkali-developable **photosensitive** layer of neg. working lithog. printing plate master suitable for direct digital platemaking by IR laser)

L48 ANSWER 14 OF 78 CA COPYRIGHT 2003 ACS

AN 137:224144 CA

TI Negative image forming material suitable for manufacturing lithographic printing plate for heat mode exposure

IN Fujimaki, Kazuhiro; Sorori, Tadahiro

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 47 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-038

ICS B41N001-14; C08F002-48; C08F290-14; G03F007-00; G03F007-004; G03F007-028; B41C001-055

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 2002251008 | A2 | 20020906 | JP 2001-48827 | 20010223 |
| | US 2002182539 | A1 | 20021205 | US 2002-80654 | 20020225 |
| PRAI | JP 2001-48827 | A | 20010223 | | |

AB The invention relates to a neg. working polymerizable imaging material suitable for manufg. a heat mode-type lithog. printing plate, wherein the imaging material comprises (1) alk.-sol. polyurethane contg. a side chain(s) selected from -X-C(O)C(R1):C(R2)R3, -Y-C(R4)(R5)-C(R6):C(R7)R8, and -Z-C(R9):C(R10)R11 [R1-11 = monovalent org. group; X, Y = O, S, -N(R12)-; Z = O, S, -N(R13)-, phenylene; R12, R13 = H, monovalent org. group;], (2) **photothermal** conversion agents (or IR absorbing dyes), and (3) radical generation compds. (or polymn. initiators) upon heat mode irrads., and optionally (4) radical polymerizable compds. The lithog. printing plate shows excellent printability.

ST heat mode neg imaging material lithog printing plate polyurethane

IT **Lithographic plates**
(neg.-working presensitized; neg. image forming material suitable for
manufg. lithog. printing plate for heat mode exposure)

IT **Photoimaging materials**
(**photopolymerizable**; neg. image forming material suitable for
manufg. lithog. printing plate for heat mode exposure)

IT Polyurethanes, preparation
RL: SPN (Synthetic preparation); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(prepn. of polyurethane for neg. working polymerizable material
suitable for lithog. printing platemaking)

IT 193687-61-5 401903-29-5
RL: TEM (Technical or engineered material use); USES (Uses)
(**IR** absorbing dye in neg. working polymerizable material
suitable for lithog. printing platemaking)

IT 66003-78-9 377780-83-1
RL: TEM (Technical or engineered material use); USES (Uses)
(polymn. initiator in neg. working polymerizable material suitable for
lithog. printing platemaking)

IT 455923-08-7P 455923-09-8P 455923-11-2P 455923-13-4P 455923-15-6P
455923-16-7P 455923-17-8P 455923-19-0P 455923-20-3P 455923-21-4P
455923-22-5P 455923-23-6P 455923-24-7P 455923-25-8P 455923-26-9P
455923-28-1P 455923-30-5P 455923-32-7P 455923-34-9P 455923-36-1P
455923-37-2P 455923-38-3P 455923-39-4P 455923-40-7P 455923-41-8P
455923-42-9P 455923-43-0P 455923-44-1P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(prepn. of polyurethane for neg. working polymerizable material
suitable for lithog. printing platemaking)

IT 29570-58-9, Dipentaerythritol hexaacrylate 455923-45-2 455923-46-3
RL: TEM (Technical or engineered material use); USES (Uses)
(radical polymerizable compd. in neg. working polymerizable material
suitable for lithog. printing platemaking)

L48 ANSWER 15 OF 78 CA COPYRIGHT 2003 ACS

AN 137:208399 CA

TI **IR**-laser sensitive material composition containing specific
aromatic cyano compound suitable for pattern formation on substrate such
as **lithographic** printing plate, semiconductor device fabrication

IN Takasaki, Ryuichiro

PA Mitsubishi Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 23 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-031

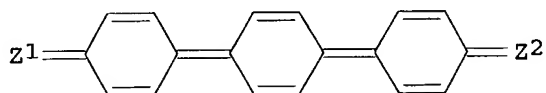
ICS C08F002-50; G03F007-027; G03F007-029

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

Section cross-reference(s): 76

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|----------|-----------------|----------|
| PI | JP 2002244290 | A2 | 20020830 | JP 2001-39866 | 20010216 |
| PRAI | JP 2001-39866 | | 20010216 | | |
| OS | MARPAT 137:208399 | | | | |
| GI | | | | | |



I

AB The title compn. contains ethylenic unsatd. compds., a **photopolymn**
 . initiator, and a sensitizing dye, wherein arom. cyano compd. I (Z1-2 =
 dicyanomethylidene, O) is added in the compn. The compn. shows the high
 IR-sensitivity and is handled under white light.

ST IR sensitive compn pattern lithog printing plate semiconductor
 device

IT **Lithographic plates**
 Semiconductor device fabrication
 (IR-laser sensitive material compn. suitable for pattern
 formation on substrate such as lithog. printing plate, semiconductor
 device fabrication)

IT Light-sensitive materials
 (IR; IR-laser sensitive material compn. suitable
 for pattern formation on substrate such as lithog. printing plate,
 semiconductor device fabrication)

IT 121286-30-4 452322-87-1
 RL: TEM (Technical or engineered material use); USES (Uses)
 (arom. cyano compd. in IR-laser sensitive material compn.)

L48 ANSWER 16 OF 78 CA COPYRIGHT 2003 ACS

AN 137:101449 CA

TI **Photopolymerizable** compositions for near IR laser
 exposure and **lithographic** plates using them with excellent
 sensitivity and storage stability

IN Tsurutani, Yasuyuki; Toshimitsu, Eriko

PA Mitsubishi Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 27 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-004

ICS G03F007-004; B41N001-14; G03F007-00; G03F007-029

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2002202592 | A2 | 20020719 | JP 2001-75248 | 20010316 |
| PRAI | JP 2000-324902 | A | 20001025 | | |

OS MARPAT 137:101449

AB The compns. contain ethylenic monomers, **photopolymn.** initiators
 (consisting of sensitizing dyes and radical generators, preferably)
 generating radicals by light with wavelength 600-1300 nm, and amine
 compds. having at. groups NCH₂.

ST near IR laser exposure **photopolymerizable** compn
 lithog; lithog printing plate storage stability benzylamine;
 phthalocyanine sensitizer radical generator **photopolymn**
 sensitivity

IT **Lithographic plates**

Photoimaging materials

(amine-contg. **photopolymerizable** compns. for lithog. plates
 with good near IR laser sensitivity and storage stability)

IT Amines, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(amine-contg. **photopolymerizable** compns. for lithog. plates)

with good near IR laser sensitivity and storage stability)

IT Polymerization catalysts
(**photopolymn.**; amine-contg. **photopolymerizable** compns. for lithog. plates with good near IR laser sensitivity and storage stability)

IT Cyanine dyes
(sensitizing dye; amine-contg. **photopolymerizable** compns. for lithog. plates with good near IR laser sensitivity and storage stability)

IT 259133-57-8
RL: CAT (Catalyst use); USES (Uses)
(amine-contg. **photopolymerizable** compns. for lithog. plates with good near IR laser sensitivity and storage stability)

IT 121-44-8, Triethylamine, uses 620-40-6, Tribenzylamine
RL: TEM (Technical or engineered material use); USES (Uses)
(amine-contg. **photopolymerizable** compns. for lithog. plates with good near IR laser sensitivity and storage stability)

IT 168112-77-4, Methacrylic acid-methyl methacrylate copolymer ester with (3,4-epoxycyclohexyl)methyl methacrylate 220171-03-9, Acrylonitrile-2-hydroxy-3-allyloxypropyl methacrylate-methacrylic acid-vinyl methacrylate copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(binder; amine-contg. **photopolymerizable** compns. for lithog. plates with good near IR laser sensitivity and storage stability)

IT 4986-89-4 32435-46-4 77001-81-1
RL: TEM (Technical or engineered material use); USES (Uses)
(monomer; amine-contg. **photopolymerizable** compns. for lithog. plates with good near IR laser sensitivity and storage stability)

IT 290-87-9D, s-Triazine, derivs. 3584-23-4, 2-(4-Methoxyphenyl)-4,6-bis(trichloromethyl)-s-triazine 191726-43-9
RL: CAT (Catalyst use); USES (Uses)
(radical generator; amine-contg. **photopolymerizable** compns. for lithog. plates with good near IR laser sensitivity and storage stability)

IT 328063-81-6
RL: CAT (Catalyst use); USES (Uses)
(sensitizing dye; amine-contg. **photopolymerizable** compns. for lithog. plates with good near IR laser sensitivity and storage stability)

IT 574-93-6, Phthalocyanine
RL: TEM (Technical or engineered material use); USES (Uses)
(sensitizing dye; amine-contg. **photopolymerizable** compns. for lithog. plates with good near IR laser sensitivity and storage stability)

L48 ANSWER 17 OF 78 CA COPYRIGHT 2003 ACS

AN 137:85964 CA

TI **Photopolymerizable** compositions containing cyanine compounds as sensitizers and **lithographic** plates using them

IN Urano, Toshiyoshi

PA Mitsubishi Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

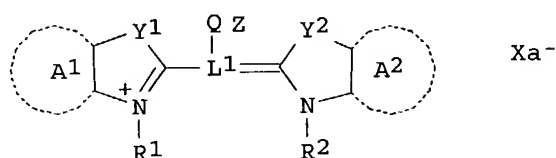
IC ICM G03F007-004

ICS B41N001-14; C08F002-50; G03F007-00; G03F007-028; G03F007-029

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---------------|------|----------|-----------------|----------|
| PI | JP 2002189291 | A2 | 20020705 | JP 2000-390192 | 20001222 |



T

- AB The compns. contain (A) ethylenically-unsat'd. compds., (B) sensitizers I
[Y1, Y2 = S, O, dialkylmethylene; A1, A2 = (un)substituted benzene ring,
(un)substituted naphthalene ring; R1, R2 = (un)substituted alkyl,
(un)substituted aryl, (un)substituted aralkyl; L1 = (un)substituted
heptamethine; Q = O, S; Z = (un)substituted tetrazolyl; Xa- = counter
anion], and (c) **photoinitiators**. The lithog. plate comprises a
support and a layer of the compns. The compns. are sensitive to visible
light esp. near-IR and are not sensitive to UV light, so the
lithog. plate can be handled under a white fluorescent lamp.
- ST **photopolymerizable** compn cyanine sensitizer presensitized lithog
plate; tetrazolyl cyanine compd sensitizer presensitized lithog plate;
near IR sensitive lithog plate cyanine dye sensitizer
- IT Cyanine dyes
(**photopolymerizable** compns. contg. cyanine compds. having
tetrazolyl group as sensitizers for near-IR-sensitive lithog.
plates)
- IT Polymerization catalysts
(**photopolymn.**; **photopolymerizable** compns. contg.
cyanine compds. having tetrazolyl group as sensitizers for near-
IR-sensitive lithog. plates)
- IT **Lithographic** plates
(presensitized; **photopolymerizable** compns. contg. cyanine
compds. having tetrazolyl group as sensitizers for near-IR
-sensitive lithog. plates)
- IT 26936-24-3, Methacrylic acid-methyl acrylate-methyl methacrylate copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(binder; **photopolymerizable** compns. contg. cyanine compds.
having tetrazolyl group as sensitizers for near-IR-sensitive
lithog. plates)
- IT 3584-23-4, 2-(p-Methoxyphenyl)-4,6-bis(trichloromethyl)-s-triazine
120307-06-4, Tetrabutylammonium butyltriphenylborate 220651-99-0
RL: CAT (Catalyst use); USES (Uses)
(**photoinitiator**; **photopolymerizable** compns. contg.
cyanine compds. having tetrazolyl group as sensitizers for near-
IR-sensitive lithog. plates)
- IT 440102-72-7
RL: MOA (Modifier or additive use); TEM (Technical or engineered material
use); USES (Uses)
(**photopolymerizable** compns. contg. cyanine compds. having
tetrazolyl group as sensitizers for near-IR-sensitive lithog.
plates)
- IT 36446-02-3P, Trimethylolpropane triacrylate homopolymer
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(**photopolymerizable** compns. contg. cyanine compds. having
tetrazolyl group as sensitizers for near-IR-sensitive lithog.
plates)

photosensitive layer
 IN Teng, Gary Ganghui
 PA USA
 SO U.S., 12 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 IC ICM G03F007-038
 ICS G03F007-039
 NCL 430302000
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | US 6410208 | B1 | 20020625 | US 2001-837130 | 20010418 |
| PRAI | US 2001-837130 | | 20010418 | | |

AB A lithog. printing plate comprises on a substrate a thermo-deactivatable **photosensitive** layer that is **photohardenable** before exposure to an IR radiation and can be rendered incapable of or having reduced rate of **photohardening** upon exposure to an IR radiation. Optionally, an oleophobic top layer may be deposited on the **photosensitive** layer to form a waterless plate. Such a plate can be imagewise exposed with an IR laser to thermally deactivate the **photosensitive** layer in the exposed areas, followed by overall actinic light exposure to harden the IR laser non-exposed areas. The exposed plate can be developed with a suitable developer to remove the IR laser exposed areas. A plate with an ink and/or fountain soln. sol. or dispersible **photosensitive** layer of this invention can be developed on a printing press with ink and/or fountain soln. during initial press operation.

ST lithog printing plate **photoresit photohardening;**
photopolymn free radical initiator

IT **Lithographic plates**

Photoresists

(lithog. printing plates having thermo-deactivatable **photosensitive** layer)

IT Polymerization

(**photopolymn.**; lithog. printing plates having thermo-deactivatable **photosensitive** layer)

IT Polymerization catalysts

(radical; lithog. printing plates having thermo-deactivatable **photosensitive** layer contg.)

IT 9011-14-7, Neocryl B-728

RL: TEM (Technical or engineered material use); USES (Uses)
 (binder in **photo-deactivatable photosensitive** layer of lithog. printing plate)

IT 69432-40-2

RL: CAT (Catalyst use); USES (Uses)

(free-radical initiator in thermo-deactivatable **photosensitive** layer for prepg. lithog. printing plate)

IT 101707-39-5, Airvol 205

RL: TEM (Technical or engineered material use); USES (Uses)
 (overcoat layer on thermo-deactivatable **photosensitive** layer for prepg. lithog. printing plate contg.)

IT 82200-28-0P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (**photo-deactivatable photosensitive** layer of lithog. printing plate contg.)

IT 577-11-7, Aerosol OT

RL: TEM (Technical or engineered material use); USES (Uses)
 (surfactant in overcoat layer on thermo-deactivatable

photosensitive layer for prepg. lithog. printing plate)

RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
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- (3) Burberry; US 5674658 A 1997 CA
- (4) Burberry; US 5677106 A 1997 CA
- (5) Cheng; US 5616449 A 1997 CA
- (6) Chia; US 5677110 A 1997 CA
- (7) Damme; US 6165691 A 2000 CA
- (8) Deboer; US 5491046 A 1996 CA
- (9) McCullough; US 6218083 B1 2001 CA
- (10) Nowak; US 5379698 A 1995
- (11) Petersen; US 4132168 A 1979 CA
- (12) Ray; US 6245477 B1 2001 CA
- (13) Sheriff; US 6117610 A 2000 CA
- (14) Takasaki; US 6232038 B1 2001 CA
- (15) Takeda; US 5858604 A 1999 CA
- (16) Teng; US 6014929 A 2000 CAPLUS
- (17) Teng; US 6071675 A 2000 CA
- (18) Teng; US 6245486 B1 2001 CA
- (19) van Damm; US 6214515 B1 2001 CA
- (20) van Damme; US 6153353 A 2000 CA
- (21) van Damme; US 6165679 A 2000 CA
- (22) Vermeersch; US 6210857 B1 2001 CAPLUS
- (23) West; US 5705309 A 1998 CA
- (24) West; US 5759742 A 1998 CA
- (25) West; US 5942372 A 1999 CA
- (26) Yokoya; US 5955238 A 1999 CA

L48 ANSWER 19 OF 78 CA COPYRIGHT 2003 ACS

AN 137:26138 CA

TI **Photopolymerization lithographic printing plate for near-infrared laser exposure and its manufacture**

IN Urano, Toshiyoshi

PA Mitsubishi Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 38 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B41N001-14

ICS B41C001-055; G03F007-00; G03F007-028; G03F007-029

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2002166669 | A2 | 20020611 | JP 2000-362422 | 20001129 |
| PRAI | JP 2000-287935 | A | 20000922 | | |

AB The plate comprises a hydrophilic support having thereon a **photosensitive** layer contg. (A) an ethylenically unsatd. compd., (B) a cyanine sensitizing dye cation linked with a heterocyclic ring through a polymethine chain and/or phthalocyanine sensitizing dye, and (C) an org. boron anion and/or a halomethyl-contg. compd. It is characterized by that peel strength of gum tape from the hydrophilic support is .ltoreq.500 g/cm. The plate is manufd. by the following steps: (1) exposing the **photosensitive** layer by near IR ray for hardening imagewise; (2) installing the exposed plate on a printing cylinder; and (3) removing unhardened areas from the support to a blanket roller surface by adhesion of ink supplied together with damping water. The plate showed high sensitivity can be developed without using alk. developer, and handled under white fluorescent lamp.

ST **photopolymerizable** lithog plate near IR exposure; peeling strength **photosensitive** layer lithog plate; damping

water ink roller development lithog plate

IT **Lithographic plates**
(**photopolymerizable** lithog plate for **IR** laser exposure)

IT 32435-46-4
RL: TEM (Technical or engineered material use); USES (Uses)
(PM 2; **photopolymerizable** lithog plate for **IR** laser exposure)

IT 64630-63-3DP, reaction products with methacrylic acid copolymer
167208-84-6DP, Isobutyl acrylate-isobutyl methacrylate-methacrylic acid-methyl methacrylate copolymer, reaction products with epoxy acrylate
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(binder; **photopolymerizable** lithog plate for **IR** laser exposure)

IT 167208-84-6, Isobutyl acrylate-isobutyl methacrylate-methacrylic acid-methyl methacrylate copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(binder; **photopolymerizable** lithog plate for **IR** laser exposure)

IT 2390-59-2, Ethyl Violet
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(**photopolymerizable** lithog plate for **IR** laser exposure)

IT 90216-38-9P, Allyl methacrylate-methacrylic acid copolymer 220122-96-3P, 3-Allyloxy-2-hydroxypropyl methacrylate-methacrylic acid copolymer
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**photopolymerizable** lithog plate for **IR** laser exposure)

IT 3584-23-4 9011-14-7, Poly(methyl methacrylate) 25736-86-1, Polyethylene glycol monomethacrylate 29570-58-9, Dipentaerythritol hexaacrylate 56361-55-8, ABPE 4 77001-81-1, UA 306H 143748-80-5, Ebecryl 8301 191726-43-9
RL: TEM (Technical or engineered material use); USES (Uses)
(**photopolymerizable** lithog plate for **IR** laser exposure)

IT 259133-57-8 328063-81-6
RL: TEM (Technical or engineered material use); USES (Uses)
(sensitizer; **photopolymerizable** lithog plate for **IR** laser exposure)

L48 ANSWER 20 OF 78 CA COPYRIGHT 2003 ACS

AN 137:13272 CA

TI Presensitized **lithographic** master plates containing silane-based electron donors for **IR** laser platemaking

IN Shimada, Kazuto; Sorori, Tadahiro

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-029

ICS B41N001-14; C08F002-50; C08F004-42; G03F007-00; G03F007-004; G03F007-027; G03F007-075

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|------------------|------|----------|-----------------|----------|
| PI | JP 2002156755 | A2 | 20020531 | JP 2000-353151 | 20001120 |
| PRAI | JP 2000-353151 | | 20001120 | | |
| OS | MARPAT 137:13272 | | | | |

AB The plates, showing superior **photosensitivity** in platemaking, have neg.-working **photoimaging** layers contg. onium-salt-type **photopolymn.** initiators, **photothermal** converters, unsatd. monomers, and silanes ABCDESi-M+ (M = cation; A-E = monovalent nonmetal atom) on supports.

ST presensitized lithog master onium initiator accelerator; electron donating silane PS plate **photosensitivity**; IR laser platemaking presensitized lithog master

IT Onium compounds
RL: CAT (Catalyst use); TEM (Technical or engineered material use); USES (Uses)
(**photopolymn.** initiators; presensitized lithog. master plates contg. silane-based electron donors for heat-mode laser platemaking)

IT Polymerization catalysts
(**photopolymn.**, onium salts; presensitized lithog. master plates contg. silane-based electron donors for heat-mode laser platemaking)

IT **Photoimaging** materials
(**photopolymn.**; presensitized lithog. master plates contg. silane-based electron donors for heat-mode laser platemaking)

IT **Lithographic** plates
(presensitized, masters; presensitized lithog. master plates contg. silane-based electron donors for heat-mode laser platemaking)

IT 17631-81-1 97889-68-4 106568-07-4 106568-09-6 140143-58-4
172532-13-7 174363-48-5 432024-05-0 432024-07-2
RL: CAT (Catalyst use); TEM (Technical or engineered material use); USES (Uses)
(**photopolymn.** accelerators; presensitized lithog. master plates contg. silane-based electron donors for heat-mode laser platemaking)

IT 19600-49-8 25183-63-5 57835-99-1, Triphenylsulfonium hexafluorophosphate 66003-78-9, Triphenylsulfonium trifluoromethanesulfonate
RL: CAT (Catalyst use); TEM (Technical or engineered material use); USES (Uses)
(**photopolymn.** initiators; presensitized lithog. master plates contg. silane-based electron donors for heat-mode laser platemaking)

IT 134127-48-3 173783-73-8 244606-76-6
RL: TEM (Technical or engineered material use); USES (Uses)
(**photothermal** converters; presensitized lithog. master plates contg. silane-based electron donors for heat-mode laser platemaking)

IT 57592-66-2P, Pentaerythritol tetraacrylate homopolymer 139385-71-0P, Glycerin dimethacrylate-hexamethylene diisocyanate copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(presensitized lithog. master plates contg. silane-based electron donors for heat-mode laser platemaking)

L48 ANSWER 21 OF 78 CA COPYRIGHT 2003 ACS

AN 137:13255 CA

TI Near IR laser-sensitive **photopolymerizable** compositions and manufacture of **lithographic** plates using the same

IN Okamoto, Hideaki; Kobori, Kazuhiro

PA Mitsubishi Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 29 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-004
ICS C08F002-50; G03F007-00; G03F007-027; G03F007-029

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | JP 2002156751 | A2 | 20020531 | JP 2000-369416 | 20001205 |
| PRAI | JP 2000-267932 | A | 20000905 | | |
| AB | The compns. contain (A) ethylenically unsatd. compds., (B) cyanine-based sensitizing dyes having heterocyclic rings bonded via polymethyne chains and/or phthalocyanine-based sensitizing dyes, (C) org. boric anions and/or halomethyl group-contg. compds., and (D) 3< and .ltoreq.20% colorants having absorption max. at 450-650 nm, preferably basic dyes, more preferably, triphenylmethane-based dyes. The compns. are applied on lithog. supports, exposed to near IR laser of 750-1200 nm, and developed with alkali developers to give lithog. plates. The colorants of that absorption max. can be compounded in the compns. relatively large amts., offering good visibility of the images, without sacrificing the sensitivity to near IR light. Moreover, treatment such as dispersing is not necessary and the compns. are free from problems like aggregation of the colorants, thereby offering good storage stability and durability in printing. | | | | |
| ST | near IR laser sensitive photopolymerizable compn; lithog plate near IR laser sensitive layer; triphenylmethane dye near IR laser lithog | | | | |
| IT | Photoimaging materials (color; near IR laser-sensitive photopolymerizable compns. contg. colorants of specific .lambda.max for lithog. plates) | | | | |
| IT | Lithographic plates (near IR laser-sensitive photopolymerizable compns. contg. colorants of specific .lambda.max for lithog. plates) | | | | |
| IT | 368868-46-6 RL: TEM (Technical or engineered material use); USES (Uses) (binder; near IR laser-sensitive photopolymerizable compns. contg. colorants of specific .lambda.max for lithog. plates) | | | | |
| IT | 2390-59-2, Ethyl Violet RL: CAT (Catalyst use); USES (Uses) (colorant, offering good visibility without sacrificing sensitivity; near IR laser-sensitive photopolymerizable compns. contg. colorants of specific .lambda.max for lithog. plates) | | | | |
| IT | 24599-21-1 32435-46-4 64401-02-1, Bisphenol A polyethylene glycol diether diacrylate 77001-81-1 RL: TEM (Technical or engineered material use); USES (Uses) (near IR laser-sensitive photopolymerizable compns. contg. colorants of specific .lambda.max for lithog. plates) | | | | |
| IT | 3584-23-4 RL: CAT (Catalyst use); USES (Uses) (radical initiator; near IR laser-sensitive photopolymerizable compns. contg. colorants of specific .lambda.max for lithog. plates) | | | | |
| IT | 259133-57-8 RL: CAT (Catalyst use); USES (Uses) (sensitizer; near IR laser-sensitive photopolymerizable compns. contg. colorants of specific .lambda.max for lithog. plates) | | | | |
| L48 | ANSWER 22 OF 78 CA COPYRIGHT 2003 ACS | | | | |
| AN | 136:377522 CA | | | | |
| TI | Negative-working IR-sensitive photopolymerizable image-forming material, image formation, and presensitized photopolymerizable lithographic plate | | | | |
| IN | Okamoto, Hideaki | | | | |
| PA | Mitsubishi Chemical Corp., Japan | | | | |
| SO | Jpn. Kokai Tokkyo Koho, 14 pp. CODEN: JKXXAF | | | | |
| DT | Patent | | | | |
| LA | Japanese | | | | |
| IC | ICM G03F007-11 ICS B41N001-14; G03F007-00; G03F007-004 | | | | |

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
Section cross-reference(s): 38

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | JP 2002139843 | A2 | 20020517 | JP 2000-336815 | 20001106 |
| PRAI | JP 2000-336815 | | 20001106 | | |
| AB | In the image-forming material comprising (a) a support, (b) a photopolymerizable compn. layer contg. an ethylenic monomer, a sensitizing dye absorbing a light of 650-1300 nm, and a radical-generating agent, and (c) a protective layer; the protective layer contains 30-90 wt.% of polyvinyl alc. The image-forming material is image-wise exposed with the light and developed with an alkali developer to form the image. Also claimed is a photopolymerizable lithog. plate employing the material and Al as a support. The image-forming material shows high sensitivity to IR and can be used under the irradiation circumstance of a visible white safelight. | | | | |
| ST | IR photoimaging material protective coating polyvinyl alc; photopolymerizable lithog plate protective coating polyvinyl alc | | | | |
| IT | Photoimaging materials (neg. working; neg.-working IR-sensitive photopolymerizable image-forming material for photopolymerizable lithog. plate) | | | | |
| IT | Lithographic plates (neg.-working IR-sensitive photopolymerizable image-forming material for photopolymerizable lithog. plate) | | | | |
| IT | Polyethers, preparation RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses) (polyamide-polyester-, lithog. plate; neg.-working IR -sensitive photopolymerizable image-forming material for photopolymerizable lithog. plate) | | | | |
| IT | Polyesters, preparation RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses) (polyamide-polyether-, lithog. plate; neg.-working IR -sensitive photopolymerizable image-forming material for photopolymerizable lithog. plate) | | | | |
| IT | Polyamides, preparation RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses) (polyester-polyether-, lithog. plate; neg.-working IR -sensitive photopolymerizable image-forming material for photopolymerizable lithog. plate) | | | | |
| IT | Coating materials (vinyl alc.-contg.; neg.-working IR-sensitive photopolymerizable image-forming material for photopolymerizable lithog. plate) | | | | |
| IT | 425380-41-2P RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses) (lithog. plate; neg.-working IR-sensitive photopolymerizable image-forming material for photopolymerizable lithog. plate) | | | | |
| IT | 32435-46-4 64401-02-1 77001-81-1 RL: TEM (Technical or engineered material use); USES (Uses) (neg.-working IR-sensitive photopolymerizable image-forming material for photopolymerizable lithog. plate) | | | | |
| IT | 9002-89-5, GL 03 9003-39-8, Luviskol K 30 25213-24-5, Vinyl acetate-vinyl alcohol copolymer RL: TEM (Technical or engineered material use); USES (Uses) (protective layer component; neg.-working IR-sensitive photopolymerizable image-forming material for | | | | |

photopolymerizable lithog. plate)

IT 3584-23-4
 RL: TEM (Technical or engineered material use); USES (Uses)
 (radical-generating agent; neg.-working IR-sensitive
 photopolymerizable image-forming material for
 photopolymerizable lithog. plate)

IT 425380-40-1
 RL: TEM (Technical or engineered material use); USES (Uses)
 (sensitizing dye; neg.-working IR-sensitive
 photopolymerizable image-forming material for
 photopolymerizable lithog. plate)

L48 ANSWER 23 OF 78 CA COPYRIGHT 2003 ACS
 AN 136:361831 CA
 TI **Photosensitive lithographic printing plate**
 IN Oshima, Yasuhito
 PA Fuji Photo Film Co., Ltd., Japan
 SO Eur. Pat. Appl., 49 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 IC ICM G03F007-033
 ICS B41C001-10
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 FAN.CNT 3

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | EP 1204000 | A1 | 20020508 | EP 2001-125486 | 20011106 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| | JP 2002139828 | A2 | 20020517 | JP 2000-337688 | 20001106 |
| | CN 1353340 | A | 20020612 | CN 2001-134562 | 20011106 |
| PRAI | JP 2000-337688 | A | 20001106 | | |

AB A **photosensitive** lithog. printing plate is described which is
 useful for direct-laser write applications and provides durable prints
 under high productivity conditions. The plate contains a
photosensitive layer contg. a poly(vinyl alc.) resin binder
 modified with an acetal skeleton comprising an aliph. cyclic structure.
 The **photosensitive** also contains: a **photopolymn.**
 initiator, a heat polymn. initiator, an addn. polymerizable compd., a
 sensitizer dye, a co-sensitizer dye, a color pigment, a fluorine-based
 surfactant, an IR absorber.

ST **photosensitive** lithog printing plate acetal modified polyvinyl
 alc binder; aliph cyclic structure modified polyvinyl alc binder printing
 plate

IT **Lithographic plates**
 (neg.-working presensitized; lithog. printing plate for direct-write
 with **photosensitive** layer contg. poly(vinyl alc.) binder
 modified with acetal skeleton having aliph. cyclic structure)

IT Polyurethanes, uses
 RL: DEV (Device component use); USES (Uses)
 (**photosensitive** coating binder mixt.; lithog. printing plate
 for direct-write with **photosensitive** layer contg. poly(vinyl
 alc.) binder modified with acetal skeleton having aliph. cyclic
 structure)

IT 64-02-8 102-71-6, Triethanolamine, uses 141-43-5, Monoethanolamine,
 uses 298-14-6 1312-76-1, Potassium silicate 1321-69-3 5968-11-6,
 Sodium carbonate monohydrate 7757-83-7, Sodium sulfite 25417-20-3,
 Sodium dibutylphenyl sulfonate 25638-17-9 28348-64-3, Sodium
 isopropylphenyl sulfonate 126305-25-7 421557-82-6
 RL: NUU (Other use, unclassified); USES (Uses)
 (developer compn.; lithog. printing plate for direct-write with
photosensitive layer contg. poly(vinyl alc.) binder modified
 with acetal skeleton having aliph. cyclic structure)

IT 134127-48-3
 RL: DEV (Device component use); USES (Uses)
 (photosensitive coating IR absorber; lithog.
 printing plate for direct-write with photosensitive layer
 contg. poly(vinyl alc.) binder modified with acetal skeleton having
 aliph. cyclic structure)

IT 4986-89-4, NK ester A-TMMT 29570-58-9, NK ester A-9530 139385-71-0, US
 101H
 RL: DEV (Device component use); USES (Uses)
 (photosensitive coating addn. polymerizable compd.; lithog.
 printing plate for direct-write with photosensitive layer
 contg. poly(vinyl alc.) binder modified with acetal skeleton having
 aliph. cyclic structure)

IT 90216-38-9, Allyl methacrylate-methacrylic acid copolymer 141634-00-6,
 Methyl methacrylate-acrylonitrile-N-[(4-sulfamoyl)phenyl]methacrylamide
 copolymer 293329-29-0, MDI-HMDI-polypropylene glycol-2,2-
 bis(hydroxymethyl)propionic acid copolymer
 RL: DEV (Device component use); USES (Uses)
 (photosensitive coating binder mixt.; lithog. printing plate
 for direct-write with photosensitive layer contg. poly(vinyl
 alc.) binder modified with acetal skeleton having aliph. cyclic
 structure)

IT 85-42-7D, 1,2-Cyclohexanedicarboxylic anhydride, reaction products with
 poly(vinyl alc.) and cyclohexanecarboxy aldehyde 2043-61-0D,
 Cyclohexanecarboxaldehyde, reaction product with poly(vinyl alc.) and
 cyclohexanedicarboxylic anhydride 9002-89-5D, Poly(vinyl alcohol),
 saponid., reaction product with cyclohexanecarboxy aldehyde and
 cyclohexanedicarboxylic anhydride
 RL: DEV (Device component use); USES (Uses)
 (photosensitive coating binder; lithog. printing plate for
 direct-write with photosensitive layer contg. poly(vinyl
 alc.) binder modified with acetal skeleton having aliph. cyclic
 structure)

IT 583-39-1 120307-06-4 293329-35-8
 RL: DEV (Device component use); USES (Uses)
 (photosensitive coating co-initiator; lithog. printing plate
 for direct-write with photosensitive layer contg. poly(vinyl
 alc.) binder modified with acetal skeleton having aliph. cyclic
 structure)

IT 120457-86-5
 RL: DEV (Device component use); USES (Uses)
 (photosensitive coating heat polymn. inhibitor; lithog.
 printing plate for direct-write with photosensitive layer
 contg. poly(vinyl alc.) binder modified with acetal skeleton having
 aliph. cyclic structure)

IT 13891-29-7 220476-51-7 262612-33-9
 RL: DEV (Device component use); USES (Uses)
 (photosensitive coating heat polymn. initiator; lithog.
 printing plate for direct-write with photosensitive layer
 contg. poly(vinyl alc.) binder modified with acetal skeleton having
 aliph. cyclic structure)

IT 125051-32-3 125407-19-4
 RL: DEV (Device component use); USES (Uses)
 (photosensitive coating photopolymn. initiator;
 lithog. printing plate for direct-write with photosensitive
 layer contg. poly(vinyl alc.) binder modified with acetal skeleton
 having aliph. cyclic structure)

IT 118234-41-6 421548-66-5
 RL: DEV (Device component use); USES (Uses)
 (photosensitive coating sensitizer dye; lithog. printing
 plate for direct-write with photosensitive layer contg.
 poly(vinyl alc.) binder modified with acetal skeleton having aliph.
 cyclic structure)

IT 85568-56-5, Megafac F-177 335612-65-2, Victoria pure blue
 naphthalenesulfonate

RL: DEV (Device component use); USES (Uses)
(**photosensitive** coating; lithog. printing plate for
direct-write with **photosensitive** layer contg. poly(vinyl
alc.) binder modified with acetal skeleton having aliph. cyclic
structure)

IT 9002-89-5, Poly(vinyl alcohol)

RL: DEV (Device component use); USES (Uses)
(protective film; lithog. printing plate for direct-write with
photosensitive layer contg. poly(vinyl alc.) binder modified
with acetal skeleton having aliph. cyclic structure)

IT 6834-92-0

RL: NUU (Other use, unclassified); USES (Uses)
(substrate hydrophilic treatment; lithog. printing plate for
direct-write with **photosensitive** layer contg. poly(vinyl
alc.) binder modified with acetal skeleton having aliph. cyclic
structure)

IT 86468-54-4, Ethyl methacrylate-sodium 2-acrylamido-2-methyl-1-
propanesulfonate copolymer 141087-50-5, 3-Methacryloxypropyl
trimethoxysilane-Tetraethoxysilane copolymer 142938-52-1

RL: DEV (Device component use); USES (Uses)
(substrate interlayer sol compn.; lithog. printing plate for
direct-write with **photosensitive** layer contg. poly(vinyl
alc.) binder modified with acetal skeleton having aliph. cyclic
structure)

IT 67-56-1, Methanol, uses 107-21-1, Ethylene glycol, uses

RL: NUU (Other use, unclassified); USES (Uses)
(substrate interlayer sol compn.; lithog. printing plate for
direct-write with **photosensitive** layer contg. poly(vinyl
alc.) binder modified with acetal skeleton having aliph. cyclic
structure)

IT 7429-90-5, Aluminum, uses

RL: DEV (Device component use); USES (Uses)
(substrate; lithog. printing plate for direct-write with
photosensitive layer contg. poly(vinyl alc.) binder modified
with acetal skeleton having aliph. cyclic structure)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

- (1) American Hoechst Corporation; EP 0211406 A 1987 CA
- (2) Hitachi Ltd; JP 06122713 A 1994 CA
- (3) Mitsubishi Chem Ind Ltd; JP 58134629 A 1983 CA
- (4) Sekisui Kagaku Kogyo Kabushiki Kaisha; EP 0150293 A 1985 CA

L48 ANSWER 24 OF 78 CA COPYRIGHT 2003 ACS

AN 136:332792 CA

TI **IR** laser heat mode type negative working **lithographic**
printing plate master

IN Shimada, Kazuto; Nakamura, Ippei; Sorori, Tadahiro

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 25 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-029

ICS B41N001-14; G03F007-00; G03F007-004; G03F007-027

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|----------|-----------------|----------|
| PI | JP 2002116539 | A2 | 20020419 | JP 2000-310808 | 20001011 |
| PRAI | JP 2000-310808 | | 20001011 | | |
| OS | MARPAT 136:332792 | | | | |

AB The title heat mode type neg. working lithog. printing plate master
contains (A) an onium type polymn. initiator, (B) a **photothermal**
conversion compd., (C) a polymerizable compd., and (D) a borate compd.

represented by Ar4B-M+ (M+ = cation; Ar = arom.) in a **photosensitive** layer. The printing plate master shows excellent sensitivity and storage stability.

ST IR laser heat mode neg working lithog printing plate

IT **Lithographic plates**

(IR laser heat mode type neg. working lithog. printing plate master)

IT **Photoimaging materials**

(**photopolymerizable**; IR laser heat mode type neg. working lithog. printing plate master)

IT 143-66-8 15522-59-5 15525-15-2 26985-34-2 108479-75-0

144699-38-7 146761-08-2 153347-65-0 159123-85-0 412267-88-0

412267-90-4 412267-92-6 412267-93-7 412267-95-9 412267-96-0

RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)

(borate compd. in **photosensitive** layer of IR laser heat mode type neg. working lithog. printing plate master to improve sensitivity as well as storage stability)

IT 134127-48-3 173783-73-8 244606-76-6

RL: DEV (Device component use); USES (Uses)

(**photothermal** conversion compd. in **photosensitive** layer of IR laser heat mode type neg. working lithog. printing plate master to improve sensitivity as well as storage stability)

IT 4986-89-4, Pentaerythritol tetraacrylate 139385-71-0, Glycerin dimethacrylate-hexamethylene diisocyanate copolymer

RL: DEV (Device component use); USES (Uses)

(polymerizable compd. in **photosensitive** layer of IR laser heat mode type neg. working lithog. printing plate master to improve sensitivity as well as storage stability)

IT 19600-49-8 25183-63-5 57835-99-1 66003-76-7 66003-78-9

398141-25-8 412043-42-6 412043-43-7

RL: CAT (Catalyst use); USES (Uses)

(polymn. initiator in **photosensitive** layer of IR laser heat mode type neg. working lithog. printing plate master to improve sensitivity as well as storage stability)

L48 ANSWER 25 OF 78 CA COPYRIGHT 2003 ACS

AN 136:286628 CA

TI Image-recording material and **lithographic** printing plate using the same

IN Shibuya, Akinori; Kunita, Kazuto; Oshima, Yasuhito

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 67 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-11

ICS G03F007-00; G03F007-027; G03F007-028; G03F007-032; G03F007-09; G03F007-095

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35, 38, 41

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|------|-----------------|------|
|------------|------|------|-----------------|------|

| | | | | |
|------------------|----|----------|----------------|----------|
| PI JP 2002099094 | A2 | 20020405 | JP 2000-288940 | 20000922 |
|------------------|----|----------|----------------|----------|

| | | | | |
|---------------------|--|----------|--|--|
| PRAI JP 2000-288940 | | 20000922 | | |
|---------------------|--|----------|--|--|

AB The invention relates to an image-recording material suitable for a CTP system. The image-recording material comprises on a support a **photopolymerizable** layer contg. a **photopolymn** initiator, a sensitizing dye, an addn. polymerizable ethylenic compd., and a polymer binder and an intermediate layer contg. a **photopolymn**. initiator. The **photopolymn**. initiator in the intermediate layer is able to interact with the hydrophilic Al support. The lithog. printing

plate using above image-forming material is also claimed.

ST computer to plate lithog printing plate

IT **Lithographic plates**
(image-recording material for lithog. printing plate)

IT Polyesters, uses
Polyurethanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(image-recording material for lithog. printing plate)

IT 3712-60-5 25183-63-5 246540-24-9
RL: TEM (Technical or engineered material use); USES (Uses)
(IR dye; image-recording material for lithog. printing plate)

IT 106-96-7DP, Propargylbromide, reaction product with
poly((dimethylamino)ethyl methacrylate) 1592-20-7DP,
4-(Chloromethyl)styrene, reaction products with poly(4-vinylpyridine)
2867-47-2DP, 2-(Dimethylamino)ethyl methacrylate, reaction product with
poly(chloromethylstyrene) 9080-67-5DP, Poly(chloromethylstyrene),
reaction product with 2-(dimethylamino)ethyl methacrylate 25154-86-3DP,
Poly((dimethylamino)ethyl methacrylate), propargylbromide 25232-41-1DP,
Poly(4-vinylpyridine), reaction products with 4-(chloromethyl)styrene
30674-80-7DP, reaction products with -vinylbenzoic acid-(4-
vinylbenzyl)triethyl ammonium chloride copolymer 53160-51-3P, Acrylic
acid-allyl methacrylate copolymer 220227-02-1DP, reaction products with
2-(methacryloyloxy)ethylisocyanate 371971-09-4P, 4-Vinylbenzoic
acid-(4-vinylbenzyl)triethyl ammonium chloride copolymer, ester with
glycidyl methacrylate
RL: SPN (Synthetic preparation); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(image-recording material for lithog. printing plate)

IT 51763-07-6 138569-95-6 293329-40-5 305369-28-2 305369-32-8
371229-72-0 406679-92-3 406679-94-5 406679-95-6 406679-96-7
RL: TEM (Technical or engineered material use); USES (Uses)
(sensitizing dye; image-recording material for lithog. printing plate)

IT 7429-90-5, Aluminum, uses
RL: DEV (Device component use); USES (Uses)
(support for lithog. printing plate)

L48 ANSWER 26 OF 78 CA COPYRIGHT 2003 ACS

AN 136:224269 CA

TI Near-IR-sensitive **photopolymerizable** compositions,
lithographic plate having layer of the composition, and processing
of the plate

IN Urano, Toshiyoshi; Tsuruya, Yasuyuki

PA Mitsubishi Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 28 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-004

ICS C08F002-50; G03F007-00; G03F007-027; G03F007-029

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2002072466 | A2 | 20020312 | JP 2000-368413 | 20001204 |
| PRAI | JP 2000-180983 | A | 20000616 | | |

AB The compns. contain (A) ethylenically-unsatd. compds., (B) cyanine dye
cations and/or phthalocyanine dyes as sensitizers, (C) org. B anions
and/or halomethyl compds., and 1-3% (D) coloring dyes having absorption
max. 450-650 nm. A lithog. plate is manufd. by imagewise exposure of a
presensitized plate having a layer of the above compn. on a support to
750-1200-nm near-IR laser and development with an alk.
developer. The compns. have high sensitivity, good storage stability, and
image visibility after development.

ST near IR sensitive presensitized lithog plate coloring dye

IT Dyes
 (basic; near-IR-sensitive **photopolymerizable**
 compns. contg. coloring dyes for presensitized lithog. plates)

IT **Lithographic plates**
 (presensitized; near-IR-sensitive **photopolymerizable**
 compns. contg. coloring dyes for presensitized lithog. plates)

IT 633-03-4, Brilliant Green 2390-60-5, Victoria Pure Blue BO
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material
 use); USES (Uses)
 (near-IR-sensitive **photopolymerizable** compns.
 contg. coloring dyes for presensitized lithog. plates)

L48 ANSWER 27 OF 78 CA COPYRIGHT 2003 ACS

AN 136:136407 CA

TI **Photosensitive** recording element and method of preparation
 thereof

IN Patel, Jayanti; Shimazu, Kenichi; Huang, Jianbing; Merchant, Nishith;
 Pappas, Peter S.

PA Kodak Polychrome Graphics Company Ltd., USA

SO Eur. Pat. Appl., 19 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM B41M005-36

ICS B41C001-10

CC 42-13 (Coatings, Inks, and Related Products)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|--|------|----------|-----------------|----------|
| PI | EP 1177911 | A1 | 20020206 | EP 2001-306757 | 20010806 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |

PRAI US 2000-633029 A 20000804

AB The element comprises (A) a substrate; and (B) an imagable compn. applied
 to the substrate comprising (1) a 1st layer, comprising (a) a
photosensitive compn. capable of absorbing actinic radiation; and
 (b) a **photothermal** converter; and (2) an ablatable 2nd layer
 contiguous to the 1st layer, wherein the 2nd layer is opaque to the
 actinic radiation. This element advantageously is useful in both pos. and
 neg. working printing plate applications, increases the efficiency of use
 of mask-generating radiation such as IR radiation and eliminates
 the need for chems. and addnl. time to create a mask. Thus, an element
 was made from a treated Al substrate; a 1st coating of MEK and
 2-methoxyethanol mixt. contg. SD 140A, ADS 830A, and P 3000; and a 2nd
 coating of H2O and MeOH mixt. contg. DTS 18 (4-Diazodiphenylamine hydrogen
 sulfate-formaldehyde copolymer) and Airvol 203S.

ST **photosensitive** recording element phenolic coating; pyrogallol
 acetone copolymer **photosensitive** recording element;
 naphthoquinone diazide copolymer coating; offset lithog printing image
 element

IT Coating materials
 (light-sensitive; **photosensitive** recording element and method
 of prepn. thereof)

IT **Lithographic plates**
 (offset; **photosensitive** recording element and method of
 prepn. thereof)

IT Catalysts
 (photochem.; **photosensitive** recording element and
 method of prepn. thereof)

IT Cycloaddition reaction
 (photocycloaddn.; **photosensitive** recording element
 and method of prepn. thereof)

IT Polymerization
 (photopolymn.; **photosensitive** recording element and
 method of prepn. thereof)

IT Optical recording materials
(**photosensitive** recording element and method of prepn. thereof)

IT Aminoplasts
RL: EPR (Engineering process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(**photosensitive** recording element and method of prepn. thereof)

IT 41432-19-3, 4-Diazodiphenylamine hydrogen sulfate-formaldehyde copolymer
RL: EPR (Engineering process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(DTS 18; **photosensitive** recording element and method of prepn. thereof)

IT 9016-83-5, SD 140A 58206-31-8, Scripset 550 58748-38-2, National Starch 28-2930 68584-99-6, P 3000 134127-48-3, ADS 830A 163442-59-9, Airvol 203S
RL: EPR (Engineering process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(**photosensitive** recording element and method of prepn. thereof)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Agfa-Gevaert Naamloze Vennootschap; EP 0803770 A 1997 CA
- (2) Lewis, T; US 5353705 A 1994
- (3) Takeda, K; US 5858604 A 1999 CA
- (4) van Damme, M; US 5922502 A 1999 CA
- (5) Vincett, P; US 5102756 A 1992
- (6) Williams, R; US 5440987 A 1995

L48 ANSWER 28 OF 78 CA COPYRIGHT 2003 ACS

AN 136:61542 CA

TI Thermal digital lithographic printing plate

IN Hauck, Celin-Savariar; Shimazu, Kenichi; Timpe, Hans-Joachim; Patel, Jayanti; Huang, Jianbing

PA Kodak Polychrome Graphics Company Ltd., USA

SO PCT Int. Appl., 42 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM B41C001-10

ICS B41N003-03

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35, 38

FAN.CNT 6

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 2001096119 | A1 | 20011220 | WO 2000-US33605 | 20001212 |
| | W: BR, JP | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR | | | | |
| | US 6534238 | B1 | 20030318 | US 2000-592895 | 20000613 |
| | EP 1303399 | A1 | 20030423 | EP 2000-986322 | 20001212 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR | | | | |
| PRAI | US 2000-592895 | A | 20000613 | | |
| | US 1998-90300P | P | 19980623 | | |
| | US 1999-301866 | A2 | 19990429 | | |
| | US 1999-469489 | A2 | 19991222 | | |
| | WO 2000-US33605 | W | 20001212 | | |
| AB | A thermally imageable element, useful as a lithog. printing plate precursor is disclosed. The element comprises a hydrophilic substrate; an | | | | |

underlayer comprising a first polymeric material; and an ink-receptive top layer comprising a second polymeric material and a soly.-suppressing component. The soly.-suppressing component may be a sep. dissoln. inhibitor compd. and/or the second polymeric material may also function as a soly.-suppressing component. On thermal exposure the exposed regions of the top layer becomes more readily sol. in an aq. developer, allowing the developer to remove the top layer and reveal the surface of the hydrophilic substrate. The lithog. printing plate thus formed has excellent properties, including the absence of sludging of the developer.

ST thermal digital lithog printing plate

IT Polyvinyl acetals

RL: TEM (Technical or engineered material use); USES (Uses)
(carboxy functional; thermal digital lithog. printing plate contg.)

IT Phenolic resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(novolak, cresol-based, tosylated; thermal digital lithog. printing plate contg.)

IT **Lithographic** plates

Thermal printing materials
(polymeric material and substrate for)

IT 134127-48-3, EC 2117

RL: TEM (Technical or engineered material use); USES (Uses)
(ADS 830A, EC 2117, Trump IR, inhibitor; thermal digital lithog. printing plate contg.)

IT 9016-83-5, LB 744

RL: TEM (Technical or engineered material use); USES (Uses)
(LB 744; thermal digital lithog. printing plate contg.)

IT 184348-68-3, PMP 234

RL: TEM (Technical or engineered material use); USES (Uses)
(PMP 234; thermal digital lithog. printing plate contg.)

IT 94108-97-1D, Ditrimethylolpropane tetraacrylate, polymer with acrylic resin

RL: TEM (Technical or engineered material use); USES (Uses)
(Sartomer 355; thermal digital lithog. printing plate **photopolymerizable** compn. contg.)

IT 1941-30-6, Tetrapropyl ammonium bromide 2390-59-2, Ethyl violet

RL: TEM (Technical or engineered material use); USES (Uses)
(inhibitor; thermal digital lithog. printing plate contg.)

IT 27754-99-0, Polyvinyl phosphonic acid

RL: TEM (Technical or engineered material use); USES (Uses)
(substrate coating; thermal digital lithog. printing plate contg.)

IT 63-74-1D, p-Aminobenzenesulfonamide, reaction with maleimide-Me vinyl ether copolymer 98-59-9D, p-Toluene sulfonyl chloride, reaction products with cresol novolaks 52229-50-2D, Gantrez AN 119, reaction with aminobenzenesulfonamide 141634-00-6, Acrylonitrile-methyl methacrylate-N-(p-aminosulfonylphenyl)methacrylamide copolymer 253272-47-8, Nega 107 321963-43-3, Methacrylic acid-methacrylamide-N-phenylmaleimide copolymer 381206-89-9 381213-54-3D, PD 140, tosylated to 3.0 mol% 381213-69-0, SPN 400

RL: TEM (Technical or engineered material use); USES (Uses)
(thermal digital lithog. printing plate contg.)

IT 603-48-5, Leuco crystal violet 86003-21-6, Actilane 20 161279-62-5, Joncryl 683 381213-71-4, Jagotex MA 2814/3

RL: TEM (Technical or engineered material use); USES (Uses)
(thermal digital lithog. printing plate **photopolymerizable** compn. contg.)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

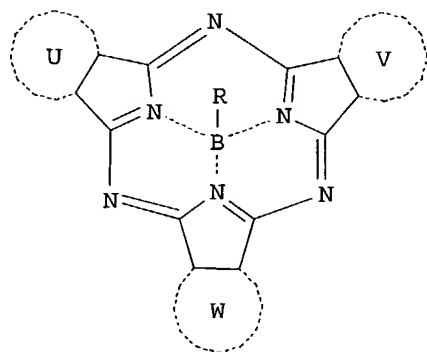
RE

- (1) Agfa-Gevaert; EP 0940266 A 1999 CA
- (2) Dainippon Ink & Chemicals; EP 0737896 A 1996 CA
- (3) Dainippon Ink & Chemicals; US 5731127 A 1998 CA
- (4) Fuji; EP 0894622 A 1999 CA
- (5) Horsell Graphic; WO 9739894 A 1997 CA
- (6) Nguyen; US 6060217 A 2000 CA

L48 ANSWER 29 OF 78 CA COPYRIGHT 2003 ACS
 AN 135:378742 CA
 TI **Photopolymerizable** composition containing subphthalocyanine dye
 and **photopolymerizable** imaging material using it
 IN Urano, Toshiyoshi; Sakamoto, Keiichi
 PA Mitsubishi Chemical Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 16 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03F007-029
 ICS C08F002-44; C08F002-50; G03F007-027; G03F007-031; C09B047-08
 CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|----------|-----------------|----------|
| PI | JP 2001318462 | A2 | 20011116 | JP 2000-192071 | 20000627 |
| PRAI | JP 2000-50840 | A | 20000228 | | |
| OS | MARPAT 135:378742 | | | | |
| GI | | | | | |



I

AB The compn. comprises (A) ethylenically unsatd. compds., (B) a subphthalocyanine dye contg. B as a central element I [R = (substituted) alkyl, (substituted) Ph, halo; U, V, W = (substituted) condensed arom. (heterocyclic) ring], and (C) **photopolymn.** initiators. The imaging material comprises a substrate coated with the above compn. layer. The compn. shows high sensitivity to laser beams from visible to IR region and high soly to solvents to be useful for lithog. plates.

ST **photopolymerizable** imaging boron subphthalocyanine dye lithog plate

IT **Photoimaging materials**
 (photopolymerizable; photopolymerizable compn. contg. subphthalocyanine dye for imaging material)

IT **Lithographic plates**
 (presensitized; photopolymerizable compn. contg. subphthalocyanine dye for imaging material)

IT 25751-21-7, Acrylic acid-methacrylic acid copolymer 36530-06-0
 77001-81-1, UA 306H 142710-55-2 173866-25-6 203742-63-6, Acrylic acid-styrene copolymer ester with 3,4-epoxycyclohexylmethyl acrylate
 373600-00-1 373600-01-2, Boron (chloro[7,12:14,19-diimino-21,5-nitrilo-5H-tripyrrodo[3,4-c:3',4'-h:3'',4'''-m][1,6,11]triazacyclopentadecinato(2-)-.kappa.N22,.kappa.N23,.kappa.N24]-)
 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (photopolymerizable compn. contg. subphthalocyanine dye for imaging material)

IT 1707-68-2 3584-23-4 125051-32-3 191726-43-9
 RL: CAT (Catalyst use); USES (Uses)
 (photopolymn. initiator; photopolymerizable compn.
 contg. subphthalocyanine dye for imaging material)

L48 ANSWER 30 OF 78 CA COPYRIGHT 2003 ACS
 AN 135:350408 CA
 TI Laser diode (LD) imaging and **photopolymers** for LD imaging
 AU Urano, Toshiyuki
 CS Research Center, Mitsubishi Chemical Corp., Aoba-ku, Yokohama, 227, Japan
 SO Proceedings of SPIE-The International Society for Optical Engineering
 (2001), 4274(Laser Applications in Microelectronic and Optoelectronic
 Manufacturing VI), 18-28
 CODEN: PSISDG; ISSN: 0277-786X
 PB SPIE-The International Society for Optical Engineering
 DT Journal
 LA English
 CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 73, 76
 AB The laser **photopolymers** and the laser imaging systems equipped
 with various laser diodes such as 410 nm-Violet laser, 532
 nm-frequency-doubled laser and high-power- IR laser are
 presented. The **photopolymer's** performances in sensitivity,
 resohn. and safelight character dependent on the wavelength and power of
 laser light are discussed.
 ST laser diode imaging **photopolymer**
 IT IR lasers
 Imaging
 Lithography
 (laser diode imaging and **photopolymers** for laser diode
 imaging)
 IT Polymers, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (photo; laser diode imaging and **photopolymers** for
 laser diode imaging)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
 (1) Nagasaka, H; Mitsubishi Kasei R and D 1992, V1, P52
 (2) Urano, T; Japan Printer 2000, V11, P19

L48 ANSWER 31 OF 78 CA COPYRIGHT 2003 ACS
 AN 135:68543 CA
 TI Method for formation of negative images by imagewise irradiation of
infrared laser
 IN Aoshima, Keitaro
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 21 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03F007-38
 ICS G03F007-30
 CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 35, 38

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2001175006 | A2 | 20010629 | JP 1999-362335 | 19991221 |
| PRAI | JP 1999-362335 | | 19991221 | | |

AB Neg. image-forming material consisting of a support having a
photosensitive layer contg. (A) IR absorber, (B) radical
 generator, (C) radically polymerizable compd., and (D) binder polymer
 irradiated by imagewise exposure with IR laser, 1-20 s heat

treatment at 60-120.degree., and aq. alk. development to give neg. images.
The materials are suitable for digital direct printing plates.

ST digital direct printing plate **photoimaging** compn; **IR**
absorber **photopolymer** compn imagewise irrads; neg image
photopolymer compn **IR** laser

IT Optical materials
(**IR** absorbers; formation of neg. images suitable as digital
direct printing plates by imagewise **IR** irrads.)

IT **IR** materials
(absorbers; formation of neg. images suitable as digital direct
printing plates by imagewise **IR** irrads.)

IT **IR** laser radiation
Lithographic plates
(formation of neg. images suitable as digital direct printing plates by
imagewise **IR** irrads.)

IT **Photoimaging** materials
(**photopolymerizable**; formation of neg. images suitable as
digital direct printing plates by imagewise **IR** irrads.)

IT Onium compounds
RL: TEM (Technical or engineered material use); USES (Uses)
(radical generator; formation of neg. images suitable as digital direct
printing plates by imagewise **IR** irrads.)

IT 134127-48-3
RL: TEM (Technical or engineered material use); USES (Uses)
(**IR** absorbing agent; formation of neg. images suitable as
digital direct printing plates by imagewise **IR** irrads.)

IT 29570-58-9, Dipentaerythritol hexaacrylate 90216-38-9, Allyl
methacrylate-methacrylic acid copolymer
RL: PEP (Physical, engineering or chemical process); TEM (Technical or
engineered material use); PROC (Process); USES (Uses)
(formation of neg. images suitable as digital direct printing plates by
imagewise **IR** irrads.)

IT 335612-65-2, Victoria pure blue naphthalenesulfonate
RL: TEM (Technical or engineered material use); USES (Uses)
(formation of neg. images suitable as digital direct printing plates by
imagewise **IR** irrads.)

IT 262612-33-9
RL: TEM (Technical or engineered material use); USES (Uses)
(radical generator; formation of neg. images suitable as digital direct
printing plates by imagewise **IR** irrads.)

L48 ANSWER 32 OF 78 CA COPYRIGHT 2003 ACS

AN 135:38920 CA

TI On-press process of **lithographic** plates having **IR**
laser sensitive mask layer

IN Teng, Gary Ganghui

PA USA

SO U.S., 9 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM G03C001-76

NCL 430270100

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | US 6245481 | B1 | 20010612 | US 1999-416843 | 19991012 |
| PRAI | US 1999-416843 | | 19991012 | | |

AB This patent describes on-press process of a lithog. plate comprising a
substrate, a **photosensitive** layer, and a top laser sensitive
mask layer. The plate is exposed by first digitally exposing the plate
with an **IR** radiation to selectively remove or render transparent
to an actinic radiation exposed areas of the mask layer and then overall

exposing the plate with the actinic radiation to cause hardening or solubilization of the **photosensitive** layer in the IR laser exposed areas. The exposed plate is processed on a printing press by contacting the plate with ink and/or fountain soln. during initial press operation to remove the mask layer and develop the **photosensitive** layer. Optionally, an ink and/or fountain soln. sol. or dispersible interlayer may be interposed between the mask layer and the **photosensitive** layer.

- ST lithog printing plate IR laser sensitive mask layer
- IT Carbon black, processes
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(Microlith Black C-K, Unisperse Black C-E 2N; lithog. printing plate comprising **photosensitive** layer and IR laser sensitive mask layer)
- IT **Lithographic plates**
Photomasks (lithographic masks)
(lithog. printing plate comprising **photosensitive** layer and IR laser sensitive mask layer)
- IT **Photoimaging materials**
(**photopolymerizable**; lithog. printing plate comprising **photosensitive** layer and IR laser sensitive mask layer)
- IT 67906-42-7, FC 120
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(FC 120; lithog. printing plate comprising **photosensitive** layer and IR laser sensitive mask layer)
- IT 60506-81-2, Sartomer SR 399
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(Sartomer SR 399; lithog. printing plate comprising **photosensitive** layer and IR laser sensitive mask layer)
- IT 71868-10-5, Irgacure 907
RL: CAT (Catalyst use); USES (Uses)
(lithog. printing plate comprising **photosensitive** layer and IR laser sensitive mask layer)
- IT 56-81-5, Glycerol, processes 78-93-3, Methylethylketone, processes 3599-32-4, IR-125 9011-14-7, Neocryl B 728 25085-98-7, Cyacure UVR-6110 30621-65-9, Epon-1031 139637-70-0, Airvol 603 288627-62-3, Rhoplex SG-10M 344346-13-0, Ebecryl RX 8301
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(lithog. printing plate comprising **photosensitive** layer and IR laser sensitive mask layer)
- IT 7429-90-5, Aluminum, processes
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(substrate; lithog. printing plate comprising **photosensitive** layer and IR laser sensitive mask layer)

RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

- (1) Cheema; US 5258263 1993 CA
- (2) Cheng; US 5516620 1996 CA
- (3) Cheng; US 5616449 1997 CA
- (4) Chia; US 5677110 1997 CA
- (5) Damme; US 5922502 1999 CA
- (6) Eames; US 3962513 1976 CA
- (7) Gardner; US 5506090 1996 CA
- (8) Gventer; US 4764213 1988 CA
- (9) Huang; US 4467028 1984 CA
- (10) Le, H; Journal of Imaging Science and Technology 1998, P49 CA
- (11) Lipovac; US 4030417 1977 CA
- (12) Nagasaka; US 5219709 1993 CA

- (13) Nguyen; US 6060217 2000 CA
- (14) Nguyen; US 6132933 2000
- (15) Nowak; US 5379698 1995
- (16) Peterson; US 4020762 1977 CA
- (17) Peterson; US 4132168 1979 CA
- (18) Roberts; US 5874188 1999 CA
- (19) Sanders; US 3997349 1976 CA
- (20) Takeda; US 5858604 1999 CA
- (21) Uraki; US 6031024 2000 CA
- (22) Vaes; US 5456999 1995 CA
- (23) Vermeersch; US 6030750 2000 CA
- (24) Vermeersh; US 6080523 2000 CA
- (25) Zhong; US 5948596 1999 CA

L48 ANSWER 33 OF 78 CA COPYRIGHT 2003 ACS

AN 134:259221 CA

TI **Photopolymerizable** composition and IR laser-sensitive material using it for lithographic plates

IN Takasaki, Ryuichiro; Urano, Toshiyoshi

PA Mitsubishi Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-029

ICS C08F002-50; G03F007-004; G03F007-027

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|----------|-----------------|----------|
| PI | JP 2001075276 | A2 | 20010323 | JP 1999-249482 | 19990903 |
| PRAI | JP 1999-249482 | | 19990903 | | |
| OS | MARPAT 134:259221 | | | | |

AB The compn. contains (A) addn.-polymerizable ethylenically unsatd. compds., (B) IR-absorbing dyes, and (C) org. B complexes A1A2A2A4B-X+ (A1 = alkyl; A2-A4 = arom. group having electron-withdrawing group; X+ = counter cation) as **photopolymn.** initiators. The IR laser-sensitive material comprises a support coated with the above compn. The compn. shows high sensitivity to IR laser beams to give lithog. printing plates with high resoln. (dot reprodn.) and no stains.

ST IR laser sensitive lithog printing plate; borate complex **photopolymn** initiator lithog plate

IT Lithographic plates

(IR laser-sensitive material contg.

photopolymerizable compn. for lithog. plates)

IT Polymerization catalysts

(**photopolymn.**, borate complexes; IR laser-sensitive material contg. **photopolymerizable** compn. for lithog. plates)

IT 25086-15-1P, Methacrylic acid-methyl methacrylate copolymer

203742-63-6P, Acrylic acid-styrene copolymer ester with (3,4-epoxycyclohexyl)methyl acrylate

RL: DEV (Device component use); PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (IR laser-sensitive material contg.

photopolymerizable compn. for lithog. plates)

IT 56361-55-8, A-BPE 4 95971-16-7, UA 306H

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(IR laser-sensitive material contg.

photopolymerizable compn. for lithog. plates)

IT 193687-63-7 220271-46-5

RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)

(IR-absorbing dye; IR laser-sensitive material

contg. **photopolymerizable** compn. for lithog. plates)
IT 330804-59-6 330804-60-9
RL: CAT (Catalyst use); USES (Uses)
(**photopolymn.** initiator; IR laser-sensitive
material contg. **photopolymerizable** compn. for lithog. plates)

L48 ANSWER 34 OF 78 CA COPYRIGHT 2003 ACS
AN 134:200564 CA
TI **Photopolymerizable** composition containing specific dye for
light-sensitive **lithographic** original plate
IN Urano, Toshiyuki
PA Mitsubishi Chemical Corporation, Japan
SO PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
IC ICM G03F007-028
ICS C08F002-48; G03F007-031; G03F007-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
Section cross-reference(s): 42

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | WO 2001014931 | A1 | 20010301 | WO 2000-JP5588 | 20000821 |
| | W: DE, US | | | | |
| | JP 2002023361 | A2 | 20020123 | JP 2000-200400 | 20000703 |
| | JP 2002023362 | A2 | 20020123 | JP 2000-207841 | 20000710 |
| | JP 2002090989 | A2 | 20020327 | JP 2000-250764 | 20000822 |
| | US 2002114966 | A1 | 20020822 | US 2002-79408 | 20020222 |
| PRAI | JP 1999-235216 | A | 19990823 | | |
| | JP 2000-200400 | A | 20000703 | | |
| | JP 2000-207841 | A | 20000710 | | |
| | JP 2000-207842 | A | 20000710 | | |
| | WO 2000-JP5588 | A1 | 20000821 | | |

OS MARPAT 134:200564

AB The **photopolymerizable** compn. for a light-sensitive lithog.
original plate comprises a layer of contg.: (A) An ethylenic compd. (B) a
dye selected from the group consisting of the dyes, which each has a basic
structure comprising heteroatoms bonded to each other through a
polymethine chain and has a specific substituent on the polymethine chain
or on another basic structure; and (C) A **photopolymn.** initiator
on a support. The **photopolymerizable** compn. contg. the dye is
highly sensitive to light not only in the visible region but in
long-wavelength regions including the near IR region and not
sensitive to light in the UV region and shows the excellent handling
characteristics under daylight fluorescent lamps.

ST **photopolymerizable** compn lithog original plate

IT Dyes

(dye in **photopolymerizable** compn. for
photopolymerizable lithog. original plate)

IT Light-sensitive materials

Lithographic plates

(**photopolymerizable** compn. for **photopolymerizable**
lithog. original plate)

IT 328063-81-6 328063-88-3 328063-95-2 328064-01-3 328064-07-9
328064-13-7 328064-16-0 328064-20-6

RL: TEM (Technical or engineered material use); USES (Uses)

(dye in **photopolymerizable** compn. for
photopolymerizable lithog. original plate)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

(1) Fuji Photo Film Co Ltd; JP 11119421 A 1999 CA

(2) Konica Corporation; JP 08114916 A 1996 CA

(3) Mitsubishi Chemical Corporation; JP 11119428 A 1999 CA

L48 ANSWER 35 OF 78 CA COPYRIGHT 2003 ACS

AN 134:11472 CA

TI **Photopolymerizing** composition, **photopolymerizing**
image-forming material, and negative image formation

IN Takasaki, Ryuichiro

PA Mitsubishi Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-028

ICS C08F002-44; C08F002-50; G02B005-20; G03F007-004; G03F007-027;
G03F007-032; G03F007-32

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|--------------|--|-----------------|----------|
| | ----- | | ----- | ----- | ----- |
| PI | JP 2000321766 | A2 | 20001124 | JP 1999-131148 | 19990512 |
| PRAI | JP 1999-131148 | | 19990512 | | |
| AB | The title photopolymg. compn. contains an ethylenic unsatd. compd., an IR -absorbing dye that generates no active radical, and a .alpha.-aminoacetophenone deriv. The image-forming material comprises a support coated with a photosensitive layer made of the compn. and is imagewise exposed using an IR laser beam in a quantity of exposure of .ltoreq.500 mJ/cm2 and developed with an aq. alkali soln. to form a neg. image. The compn. shows high sensitivity toward light in the IR region, esp. IR laser beams, and is capable of direct imaging using semiconductor and YAG lasers. | | | | |
| ST | IR absorbent photoresist ; presensitized lithog plate IR absorbent; ethylenic compd aminoacetophenone photosensitive compn | | | | |
| IT | Optical materials (IR absorbers; IR -sensitive lithog plate compn. contg. ethylenic compd., IR absorbent, and aminoacetophenone deriv.) | | | | |
| IT | Negative photoresists (IR -sensitive compn. contg. ethylenic compd., IR absorbent, and aminoacetophenone deriv.) | | | | |
| IT | IR materials (absorbers; IR -sensitive lithog plate compn. contg. ethylenic compd., IR absorbent, and aminoacetophenone deriv.) | | | | |
| IT | Polyurethanes, uses RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses) (acrylates; IR -sensitive lithog plate compn. contg. ethylenic compd., IR absorbent, and aminoacetophenone deriv.) | | | | |
| IT | Lithographic plates (presensitized; IR -sensitive compn. contg. ethylenic compd., IR absorbent, and aminoacetophenone deriv.) | | | | |
| IT | 278792-10-2 | 278792-39-5 | | | |
| | RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses) (IR absorbent; IR -sensitive lithog plate compn. contg. ethylenic compd., IR absorbent, and aminoacetophenone deriv.) | | | | |
| IT | 24447-78-7 | 25085-34-1D, | Acrylic acid-styrene copolymer, reaction products with epoxycyclohexylmethyl acrylate 29570-58-9, Dipentaerythritol hexaacrylate 64630-63-3D, 3,4-Epoxycyclohexylmethyl acrylate, reaction products with acrylic acid-styrene copolymer 95971-16-7, UA 306H RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses) (IR -sensitive lithog plate compn. contg. ethylenic compd., | | |

IR absorbent, and aminoacetophenone deriv.)

IT 119313-12-1
 RL: DEV (Device component use); MOA (Modifier or additive use); TEM
 (Technical or engineered material use); USES (Uses)
 (IRG 369; IR-sensitive lithog plate compn. contg. ethylenic
 compd., IR absorbent, and aminoacetophenone deriv.)

L48 ANSWER 36 OF 78 CA COPYRIGHT 2003 ACS
 AN 133:342516 CA
 TI **Photopolymerization** composition and printing plate containing it
 IN Takasaki, Ryuichiro; Urano, Toshiyoshi
 PA Mitsubishi Chemical Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 26 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03F007-004
 ICS C08F020-36; G03F007-00; G03F007-027; G03F007-029
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 FAN.CNT 5

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 2000305262 | A2 | 20001102 | JP 1999-360592 | 19991220 |
| PRAI | JP 1999-41667 | A | 19990219 | | |

OS MARPAT 133:342516

AB The compn. consists of an ethylenically unsatd. amine with an
 acryloyloxyalkyl and/or a phosphate with (meth)acryloyloxyalkyl, a
 phthalocyanine IR absorbing dye, and a polymn. initiator. The
 printing plate comprises an anodized Al support having thereon a layer
 contg. the obtained compn. The plate provides images with high resolving
 power, suitable for IR laser scanning exposure.

ST **photopolymn** compn acryloyloxyalkyl amine phosphate printing
 plate; phthalocyanine IR absorber **photoresist**
 presensitized lithog plate

IT Optical materials
 Optical materials
 (IR absorbers, phthalocyanine dyes; ethylenically unsatd.
 amine or phosphate in **photopolymn.** compn. for IR
 laser scanning-type printing plate)

IT Dyes
 IR materials
 IR materials
 (absorbers, phthalocyanine dyes; ethylenically unsatd. amine or
 phosphate in **photopolymn.** compn. for IR laser
 scanning-type printing plate)

IT **Photoresists**
 (ethylenically unsatd. amine or phosphate in **photopolymn.**
 compn. for IR laser scanning-type printing plate)

IT **Lithographic plates**
 (presensitized; ethylenically unsatd. amine or phosphate in
photopolymn. compn. for IR laser scanning-type
 printing plate)

IT 278792-10-2 278792-39-5
 RL: DEV (Device component use); MOA (Modifier or additive use); USES
 (Uses)
 (dye; ethylenically unsatd. amine or phosphate in **photopolymn**
 . compn. for IR laser scanning-type printing plate)

IT 24305-03-1 32435-46-4, Bis(methacryloyloxyethyl)phosphate 52628-03-2,
 Methacryloyloxyethylphosphate 56361-55-8 77001-81-1
 RL: DEV (Device component use); USES (Uses)
 (ethylenically unsatd. amine or phosphate in **photopolymn.**
 compn. for IR laser scanning-type printing plate)

IT 120307-06-4 303957-45-1
 RL: CAT (Catalyst use); DEV (Device component use); USES (Uses)

(polymn. initiator; ethylenically unsatd. amine or phosphate in
photopolymn. compn. for IR laser scanning-type
printing plate)

IT 7429-90-5, Aluminum, uses

RL: DEV (Device component use); USES (Uses)

(supports; ethylenically unsatd. amine or phosphate in
photopolymn. compn. for IR laser scanning-type
printing plate)

L48 ANSWER 37 OF 78 CA COPYRIGHT 2003 ACS

AN 133:327689 CA

TI **Photosensitive** composition and presensitized
lithographic plate using same

IN Urano, Toshiyoshi; Minakami, Junji

PA Mitsubishi Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-038

ICS C08L057-00; C08L061-06; G03F007-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|----------|-----------------|----------|
| PI | JP 2000298342 | A2 | 20001024 | JP 1999-106714 | 19990414 |
| PRAI | JP 1999-106714 | | 19990414 | | |
| OS | MARPAT 133:327689 | | | | |

AB The title **photosensitive** compn. contains a near IR
ray-absorbing dye having a structure in which atoms other than C link
through a polymethine chain having an iminium salt group as a substituent.
The presensitized lithog. plate comprises a support coated with a
photosensitive layer made of the compn. The compn. shows high
sensitivity toward light in near IR regions.

ST presensitized lithog plate near IR absorbent; cyanine dye
iminium group IR absorbent

IT Optical materials

Optical materials

(IR absorbers; **photosensitive** compn. contg. near
IR absorbent of cyanine dye with iminium group)

IT IR materials

IR materials

(absorbers; **photosensitive** compn. contg. near IR
absorbent of cyanine dye with iminium group)

IT Phenolic resins, uses

RL: DEV (Device component use); USES (Uses)

(novolak; **photosensitive** compn. contg. near IR
absorbent of cyanine dye with iminium group)

IT Lithographic plates

(presensitized; **photosensitive** compn. contg. near IR
absorbent for presensitized lithog. plate)

IT 3584-23-4, 2-(p-Methoxyphenyl)-4,6-bis(trichloromethyl)-s-triazine
220651-99-0

RL: CAT (Catalyst use); USES (Uses)

(**photopolymn.** initiator; **photosensitive** compn.
contg. near IR absorbent of cyanine dye with iminium group)

IT 15625-89-5, Trimethylolpropane triacrylate 35464-74-5,
m-Cresol-p-cresol-formaldehyde-phenol copolymer 302783-19-3

RL: DEV (Device component use); USES (Uses)

(**photosensitive** compn. contg. near IR absorbent of
cyanine dye with iminium group)

L48 ANSWER 38 OF 78 CA COPYRIGHT 2003 ACS

AN 133:96833 CA

TI Presensitized **lithographic** plate containing phthalocyanine as **infrared** ray absorbent
 IN Takasaki, Ryuichiro
 PA Mitsubishi Chemical Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 19 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03F007-00
 ICS C08F291-00; C08L051-00; G03F007-004
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 5

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2000194124 | A2 | 20000714 | JP 1998-370218 | 19981225 |
| | US 6232038 | B1 | 20010515 | US 1999-412979 | 19991006 |
| | US 2001007736 | A1 | 20010712 | US 2000-739272 | 20001219 |
| | US 6544720 | B2 | 20030408 | | |
| PRAI | JP 1998-285043 | A | 19981007 | | |
| | JP 1998-293400 | A | 19981015 | | |
| | JP 1998-370218 | A | 19981225 | | |
| | JP 1998-370219 | A | 19981225 | | |
| | JP 1999-41667 | A | 19990219 | | |
| | US 1999-412979 | A1 | 19991006 | | |

AB The plate comprises a support having thereon a **photosensitive** layer contg. an alkali sol. resin, an ethylenically unsatd. double bonded compd., an **IR** absorbing phthalocyanine dye, and a polymn. initiator. It shows improved resolving power, developability, adhesion, storage stability, and roomlight handling adaptability.

ST presensitized lithog plate phthalocyanine **IR** absorbent; org borate **photopolymn** initiator presensitized lithog

IT Optical materials
 Optical materials

(**IR** absorbers; presensitized lithog. plate contg. alkali-sol. resin, ethylenic compd., polymn. catalyst, and phthalocyanine **IR** absorbent)

IT **IR** materials
IR materials

(absorbers; presensitized lithog. plate contg. alkali-sol. resin, ethylenic compd., polymn. catalyst, and phthalocyanine **IR** absorbent)

IT **Lithographic** plates

(presensitized; presensitized lithog. plate contg. alkali-sol. resin, ethylenic compd., polymn. catalyst, and phthalocyanine **IR** absorbent)

IT 120307-06-4, Tetrabutylammonium butyltriphenylborate

RL: CAT (Catalyst use); USES (Uses)

(presensitized lithog. plate contg. alkali-sol. resin, ethylenic compd., polymn. catalyst, and phthalocyanine **IR** absorbent)

IT 822-06-0 3524-68-3 29570-58-9, Dipentaerythritol hexaacrylate
 282096-81-5

RL: DEV (Device component use); USES (Uses)

(presensitized lithog. plate contg. alkali-sol. resin, ethylenic compd., polymn. catalyst, and phthalocyanine **IR** absorbent)

IT 203742-63-6P, Acrylic acid-styrene copolymer ester with (3,4-epoxycyclohexyl)methyl acrylate

RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)

(presensitized lithog. plate contg. alkali-sol. resin, ethylenic compd., polymn. catalyst, and phthalocyanine **IR** absorbent)

L48 ANSWER 39 OF 78 CA COPYRIGHT 2003 ACS

AN 133:81597 CA

TI Positive-working **photosensitive** composition for **IR** ray

lasers
 IN Kimura, Takeshi; Fujita, Osamu
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 20 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03F007-027
 ICS B41N001-14; G03F007-004; G03F007-023
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 38
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2000187318 | A2 | 20000704 | JP 1998-364091 | 19981222 |
| PRAI | JP 1998-364091 | | 19981222 | | |

AB The title **photosensitive** compn. contains (a) a substance which absorbs light to generate heat, (b) an aq. alkali soln.-sol. polymer having phenolic OH group(s), and (c) a polymer comprising (meth)acrylate monomers having 2 or 3 C3-20 perfluoroalkyl groups in their mols. The compns. may optionally contain copolymers contg. .gtoreq.10 mol% of .gtoreq.1 monomers selected from (1) a monomer having sulfonamide groups having .gtoreq.1 H atom bonded onto N in a mol., (2) a monomer having an active imino group C(O)NHSO2, and (3) hydroxystyrene, and (meth)acrylamide and (meth)acrylic acid esters having phenolic OH group(s). The compn. is capable of direct platemaking from digital signals and provides high quality images with improved discrimination and shows improved development latitude.

ST IR laser pos **photosensitive** compn platemaking;
 fluoroacrylic polymer pos **photosensitive** compn

IT Fluoropolymers, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (acrylic; pos.-working **photosensitive** compn. for platemaking with IR ray lasers)

IT Phenolic resins, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (novolak, cresol-based; pos.-working **photosensitive** compn. for platemaking with IR ray lasers)

IT Lithographic plates
 (offset; pos.-working **photosensitive** compn. for platemaking with IR ray lasers)

IT Photoimaging materials
 (photopolymerizable, S; pos.-working **photosensitive** compn. for platemaking with IR ray lasers)

IT 56992-87-1P, N-(p-Aminosulfonylphenyl)methacrylamide
 RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (pos.-working **photosensitive** compn. for platemaking with IR ray lasers)

IT 124996-93-6P, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-ethyl methacrylate copolymer
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (pos.-working **photosensitive** compn. for platemaking with IR ray lasers)

IT 63-74-1, p-Aminobenzenesulfonamide 79-41-4, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (pos.-working **photosensitive** compn. for platemaking with IR ray lasers)

IT 117283-53-1, Victoria pure blue BOH 1-naphthalenesulfonate 134127-48-3
 279681-09-3
 RL: TEM (Technical or engineered material use); USES (Uses)
 (pos.-working **photosensitive** compn. for platemaking with IR ray lasers)

L48 ANSWER 40 OF 78 CA COPYRIGHT 2003 ACS

AN 133:81588 CA

TI **Photosensitive** composition, image-forming material, and image formation using same

IN Takasaki, Ryuichiro

PA Mitsubishi Chemical Industries Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 27 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-029

ICS C08F002-50; C08L101-16; C09B067-20; G03F007-00; G03F007-027

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

FAN.CNT 5

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|------------------|------|----------|-----------------|----------|
| PI | JP 2000181059 | A2 | 20000630 | JP 1999-282875 | 19991004 |
| PRAI | JP 1998-285043 | A | 19981007 | | |
| OS | MARPAT 133:81588 | | | | |

AB The title **photosensitive** compn. contains (a) an ethylenic unsatd. double bond-contg. compd., (b) a phthalocyanine compd. having an absorption max. in the wavelength range of 750-1200 nm as a sensitizing dye, and (c) a **photopolymn.** initiator. The image-forming material possesses a **photosensitive** layer made of the compn. on a substrate and is imagewise exposed using an IR laser in the range of 780-1200 nm and processed with an alk. developing soln. to form images. The compn. capable of direct imaging from digital signals using laser scanning exposure shows high sensitivity toward IR rays and stability under safelight.

ST presensitized lithog plate IR laser; phthalocyanine sensitizer
presensitized lithog plate; org borate **photopolymn** initiator
lithog plate

IT **Lithographic** plates

(presensitized; presensitized lithog. plate contg. ethylenic compd., phthalocyanine sensitizer, and **photopolymn.** initiator)

IT 120307-06-4, Tetrabutylammonium butyltriphenylborate 182813-95-2
278792-12-4

RL: CAT (Catalyst use); USES (Uses)

(presensitized lithog. plate contg. ethylenic compd., phthalocyanine sensitizer, and **photopolymn.** initiator)

IT 29570-58-9, DPHA 95971-16-7, UA 306H 97366-70-6 140890-32-0
278792-10-2 278792-37-3 278792-38-4 278792-39-5 278792-40-8

RL: DEV (Device component use); USES (Uses)

(presensitized lithog. plate contg. ethylenic compd., phthalocyanine sensitizer, and **photopolymn.** initiator)

IT 65697-21-4P, Benzyl methacrylate-methacrylic acid copolymer
203742-63-6P, Acrylic acid-styrene copolymer ester with
3,4-epoxycyclohexylmethyl acrylate

RL: DEV (Device component use); PNU (Preparation, unclassified); PREP
(Preparation); USES (Uses)

(presensitized lithog. plate contg. ethylenic compd., phthalocyanine sensitizer, and **photopolymn.** initiator)

L48 ANSWER 41 OF 78 CA COPYRIGHT 2003 ACS

AN 132:341204 CA

TI **Photopolymerizable** composition and lithographic printing plate and image formation method using it

IN Urano, Toshiyoshi; Nagao, Takumi; Hino, Etsuko

PA Mitsubishi Chemical Industries Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 20 pp.

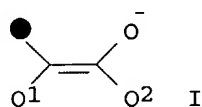
CODEN: JKXXAF

DT Patent

LA Japanese
 IC ICM G03F007-027
 ICS C08F002-48; G03F007-00; G03F007-004; G03F007-028
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 27

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|----------|-----------------|----------|
| PI | JP 2000131837 | A2 | 20000512 | JP 1999-227083 | 19990811 |
| | US 6153356 | A | 20001128 | US 1999-374846 | 19990816 |
| PRAI | JP 1998-230373 | A | 19980817 | | |
| OS | MARPAT 132:341204 | | | | |
| GI | | | | | |



AB The title compn. contains (A) ethylenically unsatd. compd., (B) cyanine dye, and (C) **photopolymerizable** initiator. In the compn., the cyanine dye has a structure in which heteroatoms (O, S, or N) are connected by polymethine chains having .gtoreq.1 substituent I (Q1, Q2 = substituents; Q1 may connects with Q2 to form a ring). Preferably, the substituent I is (thio)barbituric acid group. The lithog. printing plate has a layer of the **photopolymerizable** compn. on a support, and the layer is exposed to light at 700-1300 nm and developed with an alkali soln. for image formation. The **photopolymerizable** compn. has high sensitivity to visible light and near-IR light.

ST cyanine dye **photopolymerizable** compn lithog printing plate;
 visible light sensitivity cyanine dye **photopolymerizable** compn;
 near IR light sensitivity cyanine dye **photopolymerizable**
 compn

IT Cyanine dyes

Lithographic plates

Photoresists

(**photopolymerizable** compn. contg. cyanine dye for sensitivity to visible light and near-IR light for lithog. printing plate)

IT 259133-57-8 259133-58-9

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(**photopolymerizable** compn. contg. cyanine dye for sensitivity to visible light and near-IR light for lithog. printing plate)

L48 ANSWER 42 OF 78 CA COPYRIGHT 2003 ACS

AN 132:258189 CA

TI Near-IR sensitive polymerizable composition for
 lithographic plate

IN Urano, Toshiyoshi; Hino, Etsuko

PA Mitsubishi Chemical Industries Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 37 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-027

ICS C08F002-50; G03F007-00; G03F007-004; G03F007-028; G03F007-031

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------------|------------|---|-------------------------------------|
| PI | JP 2000098603 | A2 | 20000407 | JP 1998-272845 | 19980928 |
| PRAI | JP 1998-272845 | | 19980928 | | |
| AB | The near-IR sensitive polymerizable compn. for lithog. plate has an ethylenic unsatd. compd., a cyanine dye cation with heterocyclic rings connected through a polymethine chain, an org. borate anion, and an aliph. amino acid, an aliph. amino acid ester, or a dipole ion of aliph. amino acid or the ester. The compn. provides the high sensitivity towards near-IR light, the excellent stability over time, and the insensitivity towards UV light. | | | | |
| ST | near IR sensitive photopolymerizable compn lithog plate | | | | |
| IT | Lithographic plates (near-IR sensitive polymerizable compn. for lithog. plate) | | | | |
| IT | 103-01-5, N-Phenylglycine | 21911-84-2 | 24305-03-1 | 47252-39-1 | |
| | 62750-11-2 | 64401-02-1 | 77001-81-1 | 117522-01-7, Tetramethylammonium n-butyltriphenylborate | 191726-37-1 193687-62-6 193687-63-7 |
| RL: | TEM (Technical or engineered material use); USES (Uses) (near-IR sensitive polymerizable compn.) | | | | |

L48 ANSWER 43 OF 78 CA COPYRIGHT 2003 ACS
 AN 132:258188 CA
 TI Near-IR sensitive **photopolymerizable** composition for lithographic plate
 IN Urano, Toshiyoshi; Hino, Etsuko
 PA Mitsubishi Chemical Industries Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 29 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03F007-027
 ICS C08F002-48; C08F220-26; C08F220-36; C08F226-00; C08F230-06;
 G03F007-00; G03F007-039
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 35

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|---|--|-----------------|----------|
| PI | JP 2000098602 | A2 | 20000407 | JP 1998-269502 | 19980924 |
| PRAI | JP 1998-269502 | | 19980924 | | |
| AB | The near-IR sensitive photopolymerizable compn. for lithog. plate has compds. of: (A) an ethylenic unsatd. group-contg. amine compd. or phosphate with (meth)acyloxy alkyl group; (B-1) a cyanine dye cation of heterocyclic rings connected with polymethine chain; (B-2) an org. boric anion. The compn. provides the high sensitivity towards near-IR light, the excellent stability over time, and the insensitivity towards UV-light. | | | | |
| ST | near IR sensitive photopolymerizable compn lithog plate | | | | |
| IT | Lithographic plates (near-IR sensitive photopolymerizable compn. for lithog. plate) | | | | |
| IT | 24305-03-1 | 24447-78-7 | 32435-46-4, Bis(methacryloyloxyethyl)phosphate | | |
| | 47252-39-1 | 52628-03-2, Methacryloyloxyethylphosphate | 77001-81-1 | | |
| | 117522-01-7, Tetramethylammonium n-butyltriphenylborate | 191726-37-1 | | | |
| | 193687-62-6 | 193687-63-7 | 262597-11-5 | | |
| RL: | TEM (Technical or engineered material use); USES (Uses) (near-IR sensitive photopolymerizable compn.) | | | | |

L48 ANSWER 44 OF 78 CA COPYRIGHT 2003 ACS
 AN 132:258177 CA
 TI **Photopolymerizable** image-forming material for lithographic plate

IN Urano, Toshiyoshi; Hino, Etsuko; Nagao, Takumi
 PA Mitsubishi Chemical Industries Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 30 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03F007-027
 ICS G03F007-00; G03F007-029; G03F007-09
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2000089455 | A2 | 20000331 | JP 1998-257893 | 19980911 |
| PRAI | JP 1998-257893 | | 19980911 | | |

OS MARPAT 132:258177

AB The title image-forming material possesses, on a support having a surface where the gum-tape pressure-stuck thereon shows a peeling strength of .ltoreq.500 g/cm, a layer made of a **photopolyimg.** compn. contg. (i) an ethylenic unsatd. compd., a cyanine dye cation in which heterocycles link via a polymethine chain, and an org. B anion or (ii) an ethylenic unsatd. compd., a salt of the cyanine dye cation and a counter anion other than org. B anion, and a halomethyl-contg. compd. The material shows high sensitivity toward near IR region and non-sensitive to UV region, good storage stability, and processability under white fluorescent light.

ST IR sensitive lithog plate cyanine dye; org boron compd presensitized lithog plate; ethylenic compd presensitized lithog plate; halomethyl compd **photopolymerizable** compn

IT Lithographic plates

(presensitized; presensitized lithog. plate contg. ethylenic compd., cyanine dye, and org. boron compd. or halomethyl compd.)

IT 949-42-8 3584-23-4, 2-(p-Methoxyphenyl)-4,6-bis(trichloromethyl)-s-triazine 24305-03-1 32435-46-4, Bis(methacryloyloxyethyl) phosphate 42573-57-9, 2-(p-Methoxystyryl)-4,6-bis(trichloromethyl)-s-triazine 52628-03-2, Methacryloyloxyethyl phosphate 69432-40-2 77001-81-1 91105-84-9 117522-01-7, Tetramethylammonium butyltriphenylborate 119235-84-6 191726-37-1, Tetramethylammonium butyltris(2,6-difluorophenyl)borate 193687-63-7 211796-67-7 211796-69-9 219537-49-2 220271-46-5 262380-41-6

RL: DEV (Device component use); USES (Uses)

(presensitized lithog. plate contg. ethylenic compd., cyanine dye, and org. boron compd. or halomethyl compd.)

L48 ANSWER 45 OF 78 CA COPYRIGHT 2003 ACS

AN 132:173430 CA

TI **Photosensitive** printing original plate and production of printing plate therefrom

IN Satomi, Hiroshi; Imahashi, Satoshi

PA Toyobo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-00

ICS G03F007-038; G03F007-38

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2000056447 | A2 | 20000225 | JP 1998-223182 | 19980806 |
| PRAI | JP 1998-223182 | | 19980806 | | |

AB The title original plate comprises a support coated successively with (1) a **photopolyimg.** layer contg. an elastomer binder, an ethylenic

unsatd. compd., and a **photopolymn.** initiator sensitive toward activating rays other than IR ray, (2) a mask-forming layer that becomes opaque toward non-IR activating ray substantially by irradiation with IR rays, and (3) an optional cover film. The original plate is imagewise exposed to an IR ray laser beam after peeling the cover film off, uniformly exposed to a non-IR activating ray using the mask-forming layer as a mask, and developed with a developing soln. to remove the mask-forming layer and the areas of the **photopolymg.** layer that have not been exposed to the non-IR activating ray to give a printing plate. The original plate has a layer capable of forming a mask without development by using IR ray laser beams and a flexog. printing plate is obtained therefrom by aq. development following exposure to non-IR rays.

- ST IR sensitive mask forming layer; presensitized lithog plate elastomer **photosensitive** layer
- IT Urethane rubber, preparation
 RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
 (copolymers; **photosensitive** printing plate comprising IR-sensitive mask-forming layer and non-IR active ray-sensitive layer)
- IT Chlorinated polyethylene rubber
 Styrene-butadiene rubber, uses
 RL: DEV (Device component use); USES (Uses)
 (**photosensitive** printing plate comprising IR-sensitive mask-forming layer and non-IR active ray-sensitive layer)
- IT Nitrile rubber, preparation
 RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
 (piperazine group-terminated, copolymers; **photosensitive** printing plate comprising IR-sensitive mask-forming layer and non-IR active ray-sensitive layer)
- IT **Lithographic** plates
 (presensitized; **photosensitive** printing plate comprising IR-sensitive mask-forming layer and non-IR active ray-sensitive layer)
- IT 9002-88-4D, chlorinated
 RL: DEV (Device component use); USES (Uses)
 (chlorinated polyethylene rubber, **photosensitive** printing plate comprising IR-sensitive mask-forming layer and non-IR active ray-sensitive layer)
- IT 80-05-7, Bisphenol A, uses 29512-49-0 115970-62-2, Kayasorb CY 17 253141-09-2, Kayasorb IRG 820B
 RL: DEV (Device component use); USES (Uses)
 (mask-forming layer; **photosensitive** printing plate comprising IR-sensitive mask-forming layer and non-IR active ray-sensitive layer)
- IT 9003-18-3P
 RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
 (nitrile rubber, piperazine group-terminated, copolymers; **photosensitive** printing plate comprising IR-sensitive mask-forming layer and non-IR active ray-sensitive layer)
- IT 822-06-0D, Hexamethylene diisocyanate, copolymers with acrylic compd., alc., and rubber 868-77-9D, copolymers with acrylic compd., isocyanate, and rubber 4767-03-7D, Dimethylolpropionic acid, copolymers with acrylic compd., isocyanate, and rubber 25190-06-1D, G 850, copolymers with acrylic compd., isocyanate, and rubber 205537-69-5, ABU
 RL: DEV (Device component use); USES (Uses)
 (**photosensitive** printing plate comprising IR-sensitive mask-forming layer and non-IR active ray-sensitive layer)
- IT 9003-55-8
 RL: DEV (Device component use); USES (Uses)

(styrene-butadiene rubber, **photosensitive** printing plate comprising IR-sensitive mask-forming layer and non-IR active ray-sensitive layer)

L48 ANSWER 46 OF 78 CA COPYRIGHT 2003 ACS

AN 132:144427 CA

TI Platemaking of **lithographic** plate using inner drum plate setter

IN Azuma, Tatsuji; Okamoto, Yasuo; Sorori, Tadahiro

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-20

ICS G03F007-00; G03F007-028

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| | ----- | ---- | ----- | ----- | ----- |
| PI | JP 2000035673 | A2 | 20000202 | JP 1998-203623 | 19980717 |
| PRAI | JP 1998-203623 | | 19980717 | | |
| AB | The title process comprises exposing a lithog. plate possessing a laser- photosensitive recording layer on an Al support by using an inner drum-type plate setter using a semiconductor laser beam in the region from UV to visible rays (360-450 nm). High quality images without fog are obtained by using the plate setter and the processability under yellow light is improved. | | | | |
| ST | lithog platemaking inner drum plate setter; laser beam lithog platemaking photopolymn initiator | | | | |
| IT | Lithographic plates | | | | |
| | (lithog. platemaking using inner drum plate setter using laser beam) | | | | |
| IT | Polymerization catalysts | | | | |
| | (photopolymn. ; lithog. platemaking using inner drum plate setter using laser beam) | | | | |
| IT | 104005-37-0, A-Cure 4 | | | | |
| | RL: CAT (Catalyst use); USES (Uses) | | | | |
| | (A-Cure 4; lithog. platemaking using inner drum plate setter using laser beam) | | | | |
| IT | 141946-28-3, ARKLS 1717 | | | | |
| | RL: CAT (Catalyst use); USES (Uses) | | | | |
| | (ARKLS 1717; lithog. platemaking using inner drum plate setter using laser beam) | | | | |
| IT | 125749-28-2, BAPO | | | | |
| | RL: CAT (Catalyst use); USES (Uses) | | | | |
| | (BAPO; lithog. platemaking using inner drum plate setter using laser beam) | | | | |
| IT | 24650-42-8, IR 651 | | | | |
| | RL: CAT (Catalyst use); USES (Uses) | | | | |
| | (IR 651; lithog. platemaking using inner drum plate setter using laser beam) | | | | |
| IT | 71868-10-5, IR 907 | | | | |
| | RL: CAT (Catalyst use); USES (Uses) | | | | |
| | (IR 907; lithog. platemaking using inner drum plate setter using laser beam) | | | | |
| IT | 41295-28-7, Kayacure MBP | | | | |
| | RL: CAT (Catalyst use); USES (Uses) | | | | |
| | (Kayacure MBP; lithog. platemaking using inner drum plate setter using laser beam) | | | | |
| IT | 90-93-7, EAB 91-44-1, Coumarin 1 119-61-9, Benzophenone, uses 486-25-9, Fluorenone 10287-53-3, Kayacure EPA 21245-01-2, Kayacure DMBI 32760-80-8, CG 24-61 41175-45-5, Coumarin 106 53518-14-2, Coumarin 152 53518-16-4, Coumarin 340 55804-70-1, Coumarin 307 60536-19-8, N-Butylacridone 82799-44-8, Kayacure DETX 115168-59-7 125051-32-3, CGI 784 256471-51-9, PM 811 | | | | |

RL: CAT (Catalyst use); USES (Uses)
 (lithog. platemaking using inner drum plate setter using laser beam)
 IT 4986-89-4, Tetramethylolmethane tetraacrylate 29570-58-9,
 Dipentaerythritol hexaacrylate 65697-21-4, Benzyl methacrylate-
 methacrylic acid copolymer 90216-38-9, Allyl methacrylate-methacrylic
 acid copolymer
 RL: DEV (Device component use); TEM (Technical or engineered material
 use); USES (Uses)
 (lithog. platemaking using inner drum plate setter using laser beam)
 IT 811-32-5
 RL: CAT (Catalyst use); USES (Uses)
 (lophine dimer; lithog. platemaking using inner drum plate setter using
 laser beam)

L48 ANSWER 47 OF 78 CA COPYRIGHT 2003 ACS

AN 132:129957 CA

TI **Lithographic** printing plate containing
photopolymerizable monomer/prepolymer and **photothermal**
 conversion agent and its manufacture

IN Kojima, Yasuo; Hiraoka, Saburo; Kuroki, Takaaki

PA Konica Co., Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-00

ICS B41M001-06; B41N001-14; G03F007-004; G03F007-027; G03F007-028

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2000035661 | A2 | 20000202 | JP 1998-204995 | 19980721 |
| PRAI | JP 1998-204995 | | 19980721 | | |

AB The plate comprises a substrate having thereon a layer contg. a
 hydrophilic self-film-forming filler, a **photopolymerizable**
 lipophilic thermoplastic monomer/prepolymer, a polymn. initiator, and a
photothermal conversion agent and a layer contg. a hydrophilic
 binder in succession. The plate is manufd. by overall exposing by active
 light after imagewise exposure by high-intensity light with absorption
 wavelength of the **photothermal** conversion agent to increase mol.
 wt. of the monomer/prepolymer. The plate shows improved printability,
 preventing stains in nonimage areas, pressure fog, finger prints, and
 blanket stains.

ST lithog printing plate lipophilic thermoplastic resin hydrophilic binder

IT Silica gel, uses

RL: DEV (Device component use); USES (Uses)
 (Syloid 435; lithog. printing plate contg. **photopolymerizable**
 monomer/prepolymer and **photothermal** conversion agent)

IT **Lithographic** plates
 (presensitized; lithog. printing plate contg.
photopolymerizable monomer/prepolymer and **photothermal**
 conversion agent)

IT 184973-22-6, CY 10

RL: DEV (Device component use); USES (Uses)
 (IR absorber; lithog. printing plate contg.
photopolymerizable monomer/prepolymer and **photothermal**
 conversion agent)

IT 104922-10-3, GL 05

RL: DEV (Device component use); USES (Uses)
 (hydrophilic binder; lithog. printing plate contg.
photopolymerizable monomer/prepolymer and **photothermal**
 conversion agent)

IT 188653-13-6, Snowtex S

RL: DEV (Device component use); USES (Uses)

(hydrophilic self-film-forming agent; lithog. printing plate contg. **photopolymerizable** monomer/prepolymer and **photothermal** conversion agent)

IT 88004-52-8

RL: CAT (Catalyst use); USES (Uses)

(lithog. printing plate contg. **photopolymerizable** monomer/prepolymer and **photothermal** conversion agent)

IT 9003-20-7D, Polyvinyl acetate, hydrolyzed 25852-47-5, NK Ester 23G

RL: DEV (Device component use); USES (Uses)

(lithog. printing plate contg. **photopolymerizable** monomer/prepolymer and **photothermal** conversion agent)

L48 ANSWER 48 OF 78 CA COPYRIGHT 2003 ACS

AN 132:129859 CA

TI **Photopolymer** for laser recording

AU Shimizu, Shigeki

CS Research Lab., Mitsubishi Chemical Corporation, Japan

SO Kino Zairyo (2000), 20(2), 35-43

CODEN: KIZAEP; ISSN: 0286-4835

PB Shi Emu Shi

DT Journal; General Review

LA Japanese

CC 74-0 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

AB A review with no ref., including deep-UV lasers for semiconductors, visible lasers for publishing, and IR lasers for com. printing such as calendars, catalogs, etc., is given.

ST review **photopolymer** laser recording printing

IT IR lasers

Photolithography

UV lasers

(**photopolymer** for laser recording)

IT Polymers, uses

RL: NUU (Other use, unclassified); USES (Uses)

(**photopolymer** for laser recording)

IT **Lithographic** plates

(presensitized; **photopolymer** for laser recording)

L48 ANSWER 49 OF 78 CA COPYRIGHT 2003 ACS

AN 131:94917 CA

TI Presensitized **lithographic** plate using surface-treated aluminum support and its manufacture

IN Mori, Takahiro

PA Konica Co., Japan

SO Jpn. Kokai Tokkyo Koho, 64 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

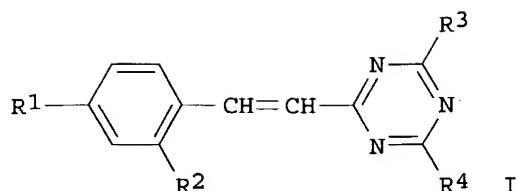
IC ICM G03F007-038

ICS B41N001-08; G03F007-00; G03F007-004; G03F007-016; G03F007-022; G03F007-023; G03F007-027; G03F007-09

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|------------------|------|----------|-----------------|----------|
| PI | JP 11167204 | A2 | 19990622 | JP 1997-332970 | 19971203 |
| PRAI | JP 1997-332970 | | 19971203 | | |
| OS | MARPAT 131:94917 | | | | |
| GI | | | | | |



- AB The title presensitized lithog. plate comprises an Al support having small pits with av. opening diam 0.2-3.0 μm which are formed densely in undulations with av. wavelength in height 3-30 μm or large pits with av. opening diam. 3-30 μm and roughly spherical protuberance having an av. diam. of 0.01 μm to $\text{ltoreq.}1/2$ of the small pit av. opening diam. inside of the small pits and thereover a layer made of a **photosensitive** compn. contg. an o-naphthoquinonediazidesulfonate of a polycondensation resin of poly(hydroxyphenols) with ketones or aldehydes (no. av. mol. wt. 3.00 \times 10²-2.00 \times 10³ and wt. av. mol. wt. 5.00 \times 10²-4.00 \times 10³) and an alkali-sol. resin. The **photosensitive** compn. may contain (1) a polymer having a structural unit CR₁R₂CR₃(CONR₄AmBOH) [R₁, R₂ = H, alkyl, CO₂H; R₃ = H, halo, alkyl; R₄ = H, alkyl, Ph, aralkyl; A = divalent linking group; m = 0 or 1; B = (substituted) phenylene, (substituted) naphthylene] in its mol. structure and an o-quinonediazide compd., (2) a resin prep'd. by copolycondensation of phenol and a 1-9:9- 1 molar ratio mixt. of p- and m-cresols with aldehydes and an o-quinonediazide compd., (3) an o-quinonediazide compd., a sym.-triazine compd. I [R₁, R₂ = (substituted) alkyl, (substituted) alkoxy, H; R₃, R₄ = C1-3 haloalkyl or haloalkenyl], a dye of which the color changes by interaction with the **photolysis** product of the triazine compd., and an alkali-sol. resin, (4) a compd. having $\text{gtoreq.}1$ addn.-polymerizable ethylenic unsatd. double bond., an acidic vinyl copolymer sol. or swellable in aq. alkali solns. comprising a compd. having an arom. and/or aliph. OH group in its side chain as a structural unit in its mol., a **photopolymer**. initiator, and a diazo resin, (5) an acid-generator, an acid-decomposable compd., and an IR absorbent, and (6) an acid-generator, an acid-insolubilizing compd., and an IR absorbent. An Al support is either mech. coarsened or electrolytically coarsened after degreasing, surface dissoln.-treated with an alkali, neutralized with an acid, electrolytically coarsened in an acidic electrolyte, addnl. surface dissoln.-treated with an alkali, neutralized with an acid, anodized to form an anodic oxide film, and coated thereon with a layer made of a metal oxide obtained by hydrolysis and polycondensation of an org. or inorg. metal compd. and then with a **photosensitive** layer made of the above compn. to give the title lithog. plate. An Al support may be surface dissoln.-treated with an alkali, neutralized with an acid, electrolytically coarsened in an acidic electrolyte based on HCl and/or AcOH, addnl. surface dissoln.-treated with an alkali, neutralized with an acid, anodized, and then coated with the above 2 layers to obtain the lithog. plate. The lithog. plate shows improved printing durability and small dot reproducibility upon printing under high speed and severe conditions such as offset rotary printing and good processability with ball-point pen and iso-PrOH-free dampening water.
- ST presensitized lithog plate aluminum support surface; quinonediazide compd presensitized lithog plate; alkali soluble resin presensitized lithog plate; triazine presensitized lithog plate; vinyl copolymer presensitized lithog plate
- IT Phenolic resins, uses
 RL: DEV (Device component use); USES (Uses)
 (presensitized lithog. plate using surface-treated aluminum support)
- IT **Lithographic** plates
 (presensitized; presensitized lithog. plate using surface-treated aluminum support)

IT Silicates, uses
 RL: DEV (Device component use); USES (Uses)
 (undercoat layer; presensitized lithog. plate using surface-treated aluminum support)

IT 3524-68-3 9003-35-4, Formaldehyde-phenol copolymer 9016-83-5, Cresol-formaldehyde copolymer 15625-89-5, Trimethylolpropane triacrylate 23295-00-3 35464-74-5, m-Cresol-p-cresol-formaldehyde-phenol copolymer 72063-23-1, Acrylonitrile-N-(4-hydroxyphenyl)methacrylamide-methacrylic acid-methyl methacrylate copolymer 74094-65-8, .alpha.-Naphthyl 1,2-naphthoquinone-2-diazido-5-sulfonate 220937-57-5
 RL: DEV (Device component use); USES (Uses)
 (presensitized lithog. plate using surface-treated aluminum support)

IT 2390-60-5, Victoria Pure Blue BOH 229326-43-6 229326-44-7 229326-45-8
 RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
 (presensitized lithog. plate using surface-treated aluminum support)

IT 7646-85-7DP, Zinc chloride, reaction products with diazo resin and ammonium hexafluorophosphate 16941-11-ODP, Ammonium hexafluorophosphate, reaction products with zinc chloride and diazo resin 125766-04-3DP, reaction products with zinc chloride and ammonium hexafluorophosphate 125785-09-3DP, Formaldehyde-p-diazodiphenylammonium sulfate-p-hydroxybenzoic acid copolymer, reaction products with zinc chloride and ammonium hexafluorophosphate
 RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
 (presensitized lithog. plate using surface-treated aluminum support)

IT 37321-70-3, AA 1050
 RL: DEV (Device component use); PRP (Properties); USES (Uses)
 (presensitized lithog. plate using surface-treated aluminum support)

IT 11099-06-2D, Ethyl silicate, hydrolyzed
 RL: DEV (Device component use); USES (Uses)
 (undercoat layer; presensitized lithog. plate using surface-treated aluminum support)

L48 ANSWER 50 OF 78 CA COPYRIGHT 2003 ACS

AN 130:146253 CA

TI Penetration development presensitized lithographic plate and its platemaking

IN Urano, Toshiyoshi; Hino, Etsuko; Tsuji, Shigeo

PA Mitsubishi Chemical Industries Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 29 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B41C001-10

ICS B41N001-10; G03F007-00; G03F007-027; G03F007-028

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 11010827 | A2 | 19990119 | JP 1997-170117 | 19970626 |
| PRAI | JP 1997-170117 | | 19970626 | | |

AB In the title presensitized lithog. plate comprising a hydrophilicized support coated with an oleophilic **photosensitive** layer contg. a compd. having .gtoreq.1 addn-polymerizable ethylenic double bond and a **photopolymer**. initiators, the peeling strength of gum tape from the support is .ltoreq.500 g/cm. In the title platemaking method in which the lithog. plate is imagewise exposed to light ranging from UV to near IR to imagewise cure the **photosensitive** layer followed by removing the unexposed area of the layer, a penetrant that penetrates into the unexposed layer to decrease the adhesivity between the layer and support is penetrated into the layer after imagewise exposure and phys. stimulation is applied to the layer to remove the unexposed area of which

the adhesivity to the support is decreased from the support. In the above method, a cover sheet may be laminated on the **photosensitive** layer prior to or after imagewise exposure of the plate and peeled after imagewise exposure to transfer the unexposed area thereto by utilizing the adhesivity of the sheet to remove the unexposed area from the support. The lithog. plate capable of forming a **photo-cured** image without processing with alk. developing soln. shows improved printing durability, **photosensitivity**, and image reproducibility.

ST penetration development presensitized lithog plate; ethylenic unsatd compd presensitized lithog plate

IT **Lithographic plates**

(presensitized; presensitized lithog. plate contg. ethylenic unsatd. compd. for penetration development)

IT 32435-46-4

RL: TEM (Technical or engineered material use); USES (Uses)

(Kayamer PM 2; presensitized lithog. plate contg. ethylenic unsatd. compd. for penetration development)

IT 90216-38-9P, Allyl methacrylate-methacrylic acid copolymer 220122-96-3P, 3-Allyloxy-2-hydroxypropyl methacrylate-methacrylic acid copolymer 220122-98-5P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(binder; presensitized lithog. plate contg. ethylenic unsatd. compd. for penetration development)

IT 167208-84-6, Isobutyl acrylate-isobutyl methacrylate-methacrylic acid-methyl methacrylate copolymer

RL: TEM (Technical or engineered material use); USES (Uses)

(binder; presensitized lithog. plate contg. ethylenic unsatd. compd. for penetration development)

IT 87068-17-5, Pelex NBL

RL: TEM (Technical or engineered material use); USES (Uses)

(penetrant; presensitized lithog. plate contg. ethylenic unsatd. compd. for penetration development)

IT 25736-86-1 56361-55-8 95971-16-7, UA 306H

RL: TEM (Technical or engineered material use); USES (Uses)

(presensitized lithog. plate contg. ethylenic unsatd. compd. for penetration development)

L48 ANSWER 51 OF 78 CA COPYRIGHT 2003 ACS

AN 129:237594 CA

TI FTIR spectroscopy studies of **photochemical** and thermal processes on offset **lithographic** printing plates

AU Torres-Filho, Afranio; Erdeski, Mark L.

CS Anitec Printing Plates, Holyoke, MA, USA

SO IS&T's Annual Conference (1997), 50th, 511-517

CODEN: ISACFN

PB Society for Imaging Science and Technology

DT Journal

LA English

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 73

AB Fourier Transform IR (FTIR) spectroscopy was used to study **photochem.** and thermal processes that take place during and after irradiation, and post-treatment, of lithog. printing plates. This technique was used both in Transmission as well as in Specular Reflectance mode. The processes studied included: (a) Monitoring free radical **photopolymerization** of acrylate oligomers and monomers; (b) Post-cure of the plates by baking at temps. between 200.degree.F (149.degree.C) and 500.degree.F (260.degree.C); (c) Following the **photodecomposition** of diazo mols. on com. plate substrates. It has been possible to det. the induction period before polymerization when radical scavengers are present in the formulation. The implication of the results on the microstructure of the network is also discussed. Attempts were made to correlate some of these observations, such as the d.p. (D.P.) and the mol. structure and phys.

properties of the monomer-oligomers used, with the performance of the plates, in particular with the resoln. and the length of run on a com. printing press.

ST FTIR spectroscopy offset lithog printing plate; **photochem**
thermal process printing plate spectroscopy

IT **Lithographic** plates

Microstructure

Physical properties

Radical scavengers

(FTIR spectroscopy study of **photochem.** and thermal process on offset lithog. printing plate)

IT Acrylic polymers, properties

RL: PRP (Properties); TEM (Technical or engineered material use); USES
(Uses)

(FTIR spectroscopy study of **photochem.** and thermal process on offset lithog. printing plate)

IT **IR** spectroscopy

(near-IR, Fourier-transform; FTIR spectroscopy study of **photochem.** and thermal process on offset lithog. printing plate)

IT Polymerization

(**photopolymn.**, free radical; FTIR spectroscopy study of **photochem.** and thermal process on offset lithog. printing plate)

RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

(1) Collins, G; J Coat Technol 1979, V51, P57 CA

(2) Decker, C; Eur Polym J 1984, V20, P753 CA

(3) Diamond, A; Handbook of Imaging Materials 1991, P61

(4) Dietz, J; Macromolecules 1995, V28, P5163 CA

(5) Gogoli, J; Photo-Offset Fundamentals, 4th ed 1980

(6) Kishore, K; J Polym Sci Polym Chem 1988, V26, P2832

(7) Koenig, T; "Cage Effects", Chap 4 in "Free Radicals" 1973, VI

(8) Kondo, S; US 4367280 1983 CA

(9) Kosar, J; Photosensitive Systems 1965

(10) Minsk, L; US 2690966 1948 CA

(11) Reiser, A; Photoreactive Polymers 1989, P102

(12) Shinozaki, F; US 4386153 1983 CA

(13) Sypek, M; US 5543262 1996 CA

(14) Torres-Filho, A; Unpublished

(15) Wilson, C; Introduction to Microlithography L F Thompson, ACS Symp Ser
1983, V219, P89

L48 ANSWER 52 OF 78 CA COPYRIGHT 2003 ACS

AN 129:168007 CA

TI Study of binder resins used in pre-sensitized **lithographic**
printing plate

AU Xu, Jinqi; Feng, Shujing; Li, Lidong; Gao, Fang; Yang, Yongyuan

CS Institute of Photographic Chemistry, Chinese Academy of Sciences, Beijing,
100101, Peop. Rep. China

SO Journal of Photopolymer Science and Technology (1998), 11(1), 105-108
CODEN: JSTEEW; ISSN: 0914-9244

PB Technical Association of Photopolymers, Japan

DT Journal

LA English

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

AB Through esterifying reaction of poly(styrene-maleic anhydride) resin with
hydroxyethyl acrylate, acrylic group and free carboxylic acid are
introduced into the side chain of resins. The developing speed in alk.
soln. and **photosensitive** properties are improved. Through
comparing 5 kinds of resins, a good result was obtained. The
photosensitivity, resoln. and half-tone dot repetition of printing
plate used A-3 resin have 6.05 mJ/cm², 4 .mu.m and 2% resp.

ST binder resin presensitized lithog printing plate; styrene maleic anhydride

resin hydroxyethyl acrylate
 IT Binders
 Esterification
 IR spectra
 Lithography
 Photoimaging materials
 Printing plates
 Ring opening
 (binder resins used in pre-sensitized lithog. printing plate)
 IT Polymerization
 (photopolymer.; binder resins used in pre-sensitized lithog.
 printing plate)
 IT 51204-92-3
 RL: NUU (Other use, unclassified); USES (Uses)
 (binder resins used in pre-sensitized lithog. printing plate)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Komano, H; GB 2273101 1994 CA
- (2) Konica Inc; JP 59450 1994
- (3) Mitsui Toatsu Chemicals Inc; JP 106548 1992
- (4) Toshoshi, U; JP 295061 1994

L48 ANSWER 53 OF 78 CA COPYRIGHT 2003 ACS

AN 129:115641 CA

TI **Photothermographic** material for lithographic plate
 preparation

IN Habenbauer, Helmuth; Eichhorn, Mathias

PA Agfa-Gevaert N.V., Belg.

SO Eur. Pat. Appl., 9 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM G03F007-00

ICS G03F001-00; G03F007-09; B41M005-36; B41C001-10

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | EP 851296 | A1 | 19980701 | EP 1997-203689 | 19971125 |
| | EP 851296 | B1 | 20020626 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | JP 10193825 | A2 | 19980728 | JP 1997-364761 | 19971222 |
| | US 5912105 | A | 19990615 | US 1997-997390 | 19971223 |
| PRAI | EP 1996-203673 | A | 19961223 | | |

AB A **photothermog.** material for lithog. plate prepn. comprises a
 substrate and two layers (a) and (b) built up thereon in the stated
 sequence (a) a **photopolymer** layer which is sensitive to
 radiation in the near UV and in the visible range but not very sensitive
 to radiation in the IR range and (b) a layer which is
 transparent to radiation in the near UV and in the visible range, only
 slightly permeable to oxygen and more permeable to oxygen under the
 influence of radiation in the IR range than before exposure.

ST **photothermog** material IR lithog plate; oxygen
 permeating compn IR lithog plate

IT Carbon black, uses

RL: TEM (Technical or engineered material use); USES (Uses)
 (Derussol P 130; **photothermog.** materials with IR
 -sensitive oxygen-permeating and **photopolymer** layers for
 lithog. plate manuf. contg.)

IT Polyurethanes, uses

RL: TEM (Technical or engineered material use); USES (Uses)
 (acrylates; **photothermog.** materials with IR
 -sensitive oxygen-permeating and **photopolymer** layers for

lithog. plate manuf. contg.)

IT Dyes
(blue, Flexo Blue; **photothermog.** materials with IR-sensitive oxygen-permeating and **photopolymer** layers for lithog. plate manuf. contg.)

IT **Photothermographic** copying
(materials; with IR-sensitive oxygen-permeating and UV-sensitive **photopolymer** layers for manuf. of lithog. plates)

IT **Lithographic** plates
(**photothermog.** materials with IR-sensitive oxygen-permeating and UV-sensitive **photopolymer** layers for manuf. of)

IT Polyurethanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(**photothermog.** materials with IR-sensitive oxygen-permeating and **photopolymer** layers for lithog. plate manuf. contg.)

IT **Photoimaging** materials
(with IR-sensitive oxygen-permeating and UV-sensitive **photopolymer** layers for manuf. of lithog. plates)

IT 602-56-2, 9-Phenylacridine 603-48-5, Leuco crystal violet 9002-89-5, Poly(vinyl alcohol) 9004-70-0, Nitrocellulose 25086-15-1, Methacrylic acid-methyl methacrylate copolymer 28630-43-5, Glycidyl methacrylate-methacrylic acid-methyl methacrylate copolymer 73539-65-8 97802-84-1, 2,4-Bis(trichloromethyl)-6-(4-styrylphenyl)-s-triazine 125051-32-3 138636-06-3, Ebecryl 1290 209806-90-6
RL: TEM (Technical or engineered material use); USES (Uses)
(**photothermog.** materials with IR-sensitive oxygen-permeating and **photopolymer** layers for lithog. plate manuf. contg.)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

- (1) Agfa Gevaert Nv; EP 0573092 A 1993 CA
- (2) Anon; PATENT ABSTRACTS OF JAPAN 1991, V015(053), PM-1079
- (3) Matsushita Electric Ind Co Ltd; JP 02286335 A 1990 CA
- (4) Nippon Paint Co Ltd; EP 0509514 A 1992 CA
- (5) Vickers Plc; EP 0275147 A 1988 CA

L48 ANSWER 54 OF 78 CA COPYRIGHT 2003 ACS

AN 129:34443 CA

TI **Photopolymerizable** composition containing addition-polymerizable compound, radical-producing agent, and squarylium compound

IN Yamaoka, Tsuguo; Koseki, Kenichi; Obara, Mitsuharu; Shimizu, Ikuo; Ito, Yukiyoshi; Kawato, Hitoshi

PA Kyowa Hakko Co., Ltd., Japan

SO U.S., 11 pp., Cont. of U.S. Ser. No. 204,363, abandoned.

CODEN: USXXAM

DT Patent

LA English

IC ICM G03C001-73

NCL 430281100

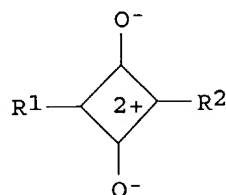
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 3

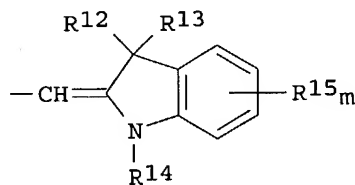
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-----------------------|------|----------|-----------------|----------|
| PI | US 5756258 | A | 19980526 | US 1995-386468 | 19950210 |
| | EP 1113335 | A1 | 20010704 | EP 2001-106388 | 19930707 |
| | R: CH, DE, FR, GB, LI | | | | |
| | US 5527659 | A | 19960618 | US 1994-331147 | 19941028 |
| | US 6007965 | A | 19991228 | US 1997-946353 | 19971007 |
| PRAI | JP 1992-185224 | A | 19920713 | | |
| | US 1993-52999 | B1 | 19930427 | | |
| | US 1994-204363 | B1 | 19940311 | | |

| | | |
|----------------|----|----------|
| US 1994-331147 | A2 | 19941028 |
| JP 1992-113604 | A | 19920506 |
| EP 1993-914964 | A3 | 19930707 |
| US 1995-386468 | A1 | 19950210 |

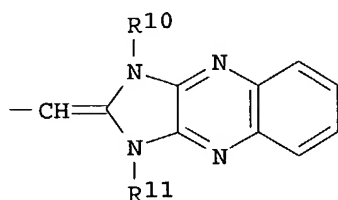
OS
GI MARPAT 129:34443



I



II



III

AB The present invention relates to a **photopolymerizable** compn. comprising an addn.-polymerizable compd. which has at least one ethylenically unsatd. double bond, a radical-producing agent, and a squarylium compd. represented by the formula I (R1 = II where R12, R13 = alkyl or R12 and R13 together with the carbon atom to which they are bonded may form a hydrocarbon ring which may be substituted with .gtoreq.1 halogen atom, an alkyl group, or an alkoxy group; R14 = H, alkyl, aryl, or aralkyl; R15 = halogen, alkyl, aryl, alkoxy, or aralkyl; m = an integer of 0-4 provided that when m = 2-4, two adjacent R15 groups together may form an arom. ring which may be substituted with .gtoreq.1 halogen atom, an alkyl group, or an alkoxy group; R2 = III where R10, R11 = H, alkyl, aryl, or aralkyl). The compn. is highly sensitive to visible and near IR lights, particularly He-Ne laser, LED, diode laser, etc. having oscillation wavelengths in .gtoreq.600 nm, and thus is useful as a material for holograms, presensitized plates for laser direct process, dry film resists, digital proofs, and **photosensitive** microcapsules.

ST **photopolymerizable** compn squarylium compd lithog plate;

photoresist photopolymerizable compn squarylium compd;

holog **photopolymerizable** compn squarylium compd

IT **Photoresists**

(**photopolymerizable** compns. contg. addn.-polymerizable compds., radical-producing agents, and squarylium compds. as)

IT Holography

(**photopolymerizable** compns. contg. addn.-polymerizable compds., radical-producing agents, and squarylium compds. for)

IT **Lithographic plates**

(**photopolymerizable** compns. contg. addn.-polymerizable compds., radical-producing agents, and squarylium compds. for prepn. of)

IT **Photoimaging materials**

(**photopolymerizable**; contg. addn.-polymerizable compds., radical-producing agents, and squarylium compds.)

IT 135596-19-9 156057-17-9 159094-57-2

RL: TEM (Technical or engineered material use); USES (Uses)
(**photopolymerizable** compns. for holog. and
photolithog. contg.)

IT 79-41-4D, Methacrylic acid, esters, polymers 3524-68-3, Pentaerythritol
triacrylate 6542-67-2, 2,4,6-Tris(trichloromethyl)triazine
RL: TEM (Technical or engineered material use); USES (Uses)

(**photopolymerizable** compns. for holog. and
photolithog. contg. squarylium compds. and)

IT 156057-15-7P 156057-31-7P 156099-24-0P 156764-74-8P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(prepn. and use in prep. **photopolymerizable** compns. for
holog. and **photolithog.**)

IT 91-22-5, Quinoline, reactions 118-12-7, 1,3,3-Trimethyl-2-
methyleneindoline 605-59-4, N-Ethyllepidinium iodide 2892-63-9
7478-69-5, 1,1-Bis(p-dimethylaminophenyl)ethylene 61699-62-5,
3,4-Diisopropoxy-3-cyclobutene-1,2-dione 155950-65-5,
1,3-Dihexyl-2-methylimidazo[4,5-b]quinoxalinium tosylate 155950-67-7,
1,3-Dibutyl-2-methylimidazo[4,5-b]quinoxalinium tosylate
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT
(Reactant or reagent); USES (Uses)
(reaction in prep. squarylium compds. for **photopolymerizable**
compns. for holog. and **photolithog.**)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

- (1) Anon; EP 0379200 1990 CA
- (2) Anon; JP 2306247 1990
- (3) Anon; EP 0408014 1991 CA
- (4) Santoh; US 5190849 1993
- (5) Satoh; US 5256794 1993 CA
- (6) Yamaoka; US 5527659 1996 CA

L48 ANSWER 55 OF 78 CA COPYRIGHT 2003 ACS

AN 128:134403 CA

TI **Photosensitive** composition and element containing polyazide and
infrared absorber in **photocrosslinkable** binder

IN West, Paul Richard; Gurney, Jeffery Allen

PA Eastman Kodak Co., USA

SO U.S., 7 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM G03F007-012

NCL 430167000

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|------------------|----------|
| PI | US 5705309 | A | 19980106 | US 1996-719100 | 19960924 |
| | DE 19738134 | A1 | 19980326 | DE 1997-19738134 | 19970901 |
| | JP 10115914 | A2 | 19980506 | JP 1997-258736 | 19970924 |
| PRAI | US 1996-719100 | | 19960924 | | |

AB An IR imaging compn. comprises a **photocrosslinkable**
polymeric binder having pendant **photopolymerizable** olefinic
double bonds, a polyazide **photoinitiator**, and an IR
-absorbing compd. The imaging compn. is useful in prepn. of a
presensitized lithog. printing plate that can be used to provide an image
using a laser, followed by development.

ST IR laser **photoimaging** compn lithog plate; polyazide
IR **photoimaging** compn lithog plate;
photopolymerizable binder IR laser **photoimaging**
compn

IT **Lithographic** plates
(IR imaging compns. contg. polyazides, IR

absorbers, and **photocrosslinkable** binders for manuf. of)

IT Polyamic acids
 RL: TEM (Technical or engineered material use); USES (Uses)
 (IR imaging compns. for lithog. plate manuf. contg.
 polyazides and)

IT Carbon black, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (IR imaging compns. for lithog. plate manuf. contg.
 polyazides, **photocrosslinkable** binders and)

IT **Photoimaging** materials
 (IR; contg. polyazides, IR absorbers, and
photocrosslinkable binders for lithog. plate prepn.)

IT Polyethers, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (di-Me siloxane-, BYK 307; IR imaging compns. for lithog.
 plate manuf. contg. polyazides and)

IT Polysiloxanes, uses
 Polysiloxanes, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (di-Me, polyether-, BYK 307; IR imaging compns. for lithog.
 plate manuf. contg. polyazides and)

IT 5284-79-7, 2,6-Bis(p-azidobenzal)-4-methylcyclohexanone
 RL: TEM (Technical or engineered material use); USES (Uses)
 (IR imaging compns. for lithog. plate manuf. contg.
photopolymerizable binders and)

IT 31942-21-9D, Benzophenonetetracarboxylic dianhydride-oxydianiline-m-
 phenylenediamine copolymer, esterified with hydroxyethyl methacrylate
 RL: TEM (Technical or engineered material use); USES (Uses)
 (IR imaging compns. for lithog. plate manuf. contg.
 polyazides and)

IT 2718-90-3 2915-44-8 5284-80-0 10193-62-1, 4,4'-Diazidostilbene
 14128-15-5 17303-16-1, 4,4'-Diazidobenzophenone 20237-98-3
 48180-65-0 72695-23-9
 RL: TEM (Technical or engineered material use); USES (Uses)
 (IR imaging compns. for lithog. plate manuf. contg.
 polymerizable binders, IR absorbers and)

IT 147-14-8, Irgalite Blue GLVO
 RL: TEM (Technical or engineered material use); USES (Uses)
 (Irgalite Blue GLVO; IR imaging compns. for lithog. plate
 manuf. contg. polyazides and)

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE

- (1) Anon; EP 562952 1993
- (2) Anon; EP 654711 1995 CA
- (3) Bills; US 5278023 1994 CA
- (4) Etherington; US 5254431 1993 CA
- (5) Kotachi; US 5326670 1994 CA
- (6) Kozu; US 3840390 1974 CA
- (7) Pawlowski; US 4940646 1990 CA
- (8) Potts; US 5238777 1993 CA
- (9) Rauner; US 4139390 1979 CA
- (10) West; US 4622284 1986 CA

L48 ANSWER 56 OF 78 CA COPYRIGHT 2003 ACS

AN 127:101775 CA

TI **Photoradical** generating agent, **photopolymerizable**
 composition, and process of presensitized lithographic printing
 plate

IN Nakayama, Noritaka

PA Konica Co., Japan

SO Jpn. Kokai Tokkyo Koho, 24 pp.
 CODEN: JKXXAF

DT Patent

LA Japanese

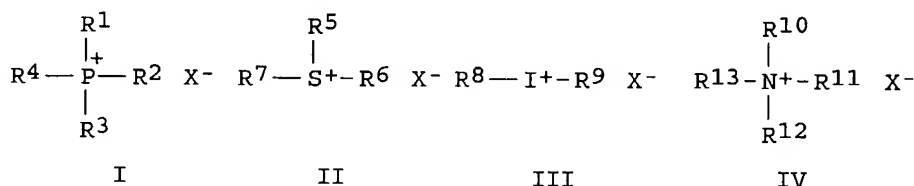
IC ICM G03F007-029

ICS C07F009-54; C08F002-50; G03F007-031; C07C381-12
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 35, 38

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 09134009 | A2 | 19970520 | JP 1995-291286 | 19951109 |
| PRAI | JP 1995-291286 | | 19951109 | | |

GI



AB In the **photoradical** generating agent contg. an onium salt represented by I, II, III, and IV (R1-4, R10-12 = alkyl, aryl, aralkyl; R5-7 = alkyl, aryl; R8,9 = aryl; X- = counter ion), a radical generating agent, and carbon black, the onium salt and/or the radical generating agent is adsorbed on carbon black. The counter ion may be a halogen ion. The radical generating agent may be a bisimidazole deriv. The compn. is used for a **photosensitive** layer of a presensitized lithog. printing plate, in which the **photosensitive** layer contains a compd. having .gtoreq.1 ethylenic unsatd. bond, a binder, and the **photoradical** generating agent. The presensitized lithog. printing plate is exposed by a laser beam, and then unexposed areas of the protective layer and the **photosensitive** layer are eluted. A high concn. of the **photoradical** was generated by irradiating IR light.

ST **photoradical** generator presensitized lithog printing plate

IT **Lithographic** plates

(**photopolymerizable** compn. in presensitized lithog. printing plate)

IT Carbon black, uses

RL: NUU (Other use, unclassified); USES (Uses)

(**photopolymerizable** compn. in presensitized lithog. printing plate)

IT 869-51-2, Tris(2-hydroxyethyl)sulfonium chloride 1643-19-2, Tetrabutylammonium bromide 3115-68-2, Tetrabutylphosphonium bromide 3462-97-3, 4-Methoxybenzyltriphenylphosphonium chloride 4189-82-6 5197-95-5, Benzyltriethylammonium bromide 5667-47-0 14937-42-9, Tetra(decyl)ammonium bromide 25316-59-0, Benzyltributylammonium bromide 58377-39-2

RL: MOA (Modifier or additive use); USES (Uses)

(**photopolymerizable** compn. in presensitized lithog. printing plate)

IT 2256-48-6 12157-31-2 108961-97-3 109347-70-8 110930-60-4 173474-43-6

RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(**photopolymerizable** compn. in presensitized lithog. printing plate)

IT 90-94-8 1707-68-2 82799-44-8 189515-41-1

RL: MOA (Modifier or additive use); USES (Uses)

(**photoradical** generating agent in compn. in presensitized lithog. printing plate)

AN 126:270395 CA
 TI Process for producing lithographic printing plate,
photosensitive plate and aqueous ink composition therefor
 IN Hase, Takakazu; Arimatsu, Seiji; Kimoto, Koichi
 PA Nippon Paint Co., Ltd., Japan
 SO U.S., 8 pp., Cont.-in-part of U.S.Ser.No.870,423, abandoned.
 CODEN: USXXAM
 DT Patent
 LA English
 IC ICM G03F007-30
 NCL 430302000
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | US 5609993 | A | 19970311 | US 1994-318559 | 19941005 |
| | JP 04317065 | A2 | 19921109 | JP 1991-85176 | 19910417 |
| PRAI | JP 1991-85176 | | 19910417 | | |
| | US 1992-870423 | | 19920417 | | |

AB The present invention provides an improvement of a direct lithog. printing plate-making process using ink-jet printing to provide a lithog. printing plate having excellent resolu. Accordingly, the present invention provides an improvement of a process for producing a lithog. printing plate comprising selectively forming a light-transmittable oxygen barrier film on a **photopolymerizable** layer of a **photosensitive** plate, exposing to light and then removing uncured portion on which the oxygen barrier film is not covered, wherein a protective layer which is capable of transmitting oxygen gas and the light to cure the **photopolymerizable** layer is formed on the **photopolymerizable** layer, a **photosensitive** plate therefor, and an aq. ink compn. therefor.

ST lithog plate prepn ink jet printing

IT Polyoxyalkylenes, uses

RL: TEM (Technical or engineered material use); USES (Uses)
 (PEO 1; direct lithog. plate prepn. by **photopolymn.** and ink-jet printing using **photosensitive** plates with protective layers of)

IT Ink-jet printing

(in prepn. of lithog. plates)

IT Polyurethanes, uses

RL: TEM (Technical or engineered material use); USES (Uses)
 (oligomers, Viscoat; in prepn. of lithog. plates)

IT **Lithographic** plates

(prepn. using **photopolymn.** and ink-jet printing)

IT 9003-39-8, Poly(vinylpyrrolidone)

RL: TEM (Technical or engineered material use); USES (Uses)
 (K 30; direct lithog. plate prepn. by **photopolymn.** and ink-jet printing using **photosensitive** plates with protective layers of)

IT 25322-68-3

RL: TEM (Technical or engineered material use); USES (Uses)
 (PEO 1; direct lithog. plate prepn. by **photopolymn.** and ink-jet printing using **photosensitive** plates with protective layers of)

IT 128-37-0, 2,6-Di-tert-butyl-4-methylphenol, uses 3524-68-3 25930-98-7,
 Neocryl B 723 58206-31-8, Scripset 540 71868-10-5, IR 907

RL: TEM (Technical or engineered material use); USES (Uses)
 (direct lithog. plate prepn. by ink-jet printing and **photopolymn.** using **photopolymn.** compn. contg.)

IT 56-81-5, 1,2,3-Propanetriol, uses 569-64-2, Malachite green 9002-89-5,
 Poly(vinyl alcohol) 9016-45-9, Polyethylene glycol nonylphenyl ether

RL: TEM (Technical or engineered material use); USES (Uses)
 (direct lithog. plate prepn. by **photopolymn.** and ink-jet printing using ink compn. contg.)

IT 9004-62-0, Hydroxyethylcellulose 9004-64-2, Hydroxypropylcellulose
 9004-65-3, Hydroxypropylmethylcellulose
 RL: TEM (Technical or engineered material use); USES (Uses)
 (direct lithog. plate prepn. by **photopolymn.** and ink-jet
 printing using **photosensitive** plates with protective layers
 of)

L48 ANSWER 58 OF 78 CA COPYRIGHT 2003 ACS

AN 126:244890 CA

TI **Photopolymerizing** composition, image-forming material, radical
 generation, **photosensitive** material for preparing
lithographic plate, and preparation of **lithographic**
 plate

IN Nakayama, Noritaka

PA Konishiroku Photo Ind, Japan

SO Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-029

ICS B41C001-00; G03F007-00; G03F007-004; G03F007-027; G03F007-031;
 G03F007-20

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| | ----- | --- | ----- | ----- | ----- |
| PI | JP 09034110 | A2 | 19970207 | JP 1995-180086 | 19950717 |
| PRAI | JP 1995-180086 | | 19950717 | | |

OS MARPAT 126:244890

AB The title compn. contains a polymg. compd., .gtoreq.1 onium salt selected
 from R1P+R2R3R4 X-, R5S+R6R7 X-, R8I+R9 X-, and R10N+R11R12R13 X- (R1-4,
 R10-13 = alkyl, aryl, aralkyl, R1-4 or R10-13 may form a ring; R5-7 =
 alkyl, aryl, R5-7 may form a ring; R8, R9 = aryl; X- = counter anion), a
 light-heat-converting element, and a radical-generating agent. The
 image-forming material comprises the compn. contg. the onium salt in which
 the counter anion is Cl- or Br-. Radicals are generated by irradiation of the
 compn. using **IR** rays. The **photosensitive** material
 comprises a hydrophilic support with coatings of a **photosensitive**
 layer contg. a compd. having .gtoreq.1 ethylenic unsatd. bond, a binder,
 .gtoreq.1 of the above onium salts, a light-heat-converting element, and a
 radical-generating agent and a protective layer. The material is
 imagewise exposed under semiconductor laser scanning followed by removing
 the protective layer and the unexposed areas of the **photosensitive**
 layer to give a lithog. printing plate. The compn. provides high
 sensitive and high resolu. images using **IR** rays and shows good
 storage stability.

ST **photopolymerizable** compn onium salt; sulfonium salt
photopolymerizable compn; ammonium salt **photopolymerizable**
 compn; light heat conversion agent; radical initiator
photopolymerizable compn; **photosensitive** lithog plate
 onium salt; semiconductor laser scanning lithog plate; **IR** ray
 radical generator

IT Phosphonium compounds

Quaternary ammonium compounds, uses

RL: MOA (Modifier or additive use); USES (Uses)

(**photosensitive** lithog. plate prepd. from compn. contg. onium
 compd. by semiconductor laser scanning)

IT **Lithographic** plates

(**photosensitive**; **photosensitive** lithog. plate

prepd. from compn. contg. onium compd. by semiconductor laser scanning)

IT 12157-31-2 108961-97-3 109347-70-8 110930-60-4 173474-43-6

RL: MOA (Modifier or additive use); USES (Uses)

(light-heat conversion agent; **photosensitive** lithog. plate

prepd. from compn. contg. onium compd. by semiconductor laser scanning)

IT 56-37-1, Benzyltriethylammonium chloride 869-51-2 1643-19-2,
Tetrabutylammonium bromide 3115-68-2, Tetrabutylphosphonium bromide
3462-97-3 4189-82-6, Diphenyl(p-methylphenyl)sulfonium bromide
5667-47-0 14866-34-3, Tetradodecylammonium bromide 25316-59-0,
Benzyltributylammonium bromide 58377-39-2, Bis(P-tert-
butylphenyl)iodonium bromide
RL: MOA (Modifier or additive use); USES (Uses)
(**photosensitive** lithog. plate prepd. from compn. contg. onium
compd. by semiconductor laser scanning)

IT 1707-68-2 29777-36-4 71002-23-8 188348-58-5
RL: CAT (Catalyst use); USES (Uses)
(radical initiator; **photosensitive** lithog. plate prepd. from
compn. contg. onium compd. by semiconductor laser scanning)

L48 ANSWER 59 OF 78 CA COPYRIGHT 2003 ACS

AN 125:342868 CA

TI **Photopolymerization** image-forming method using laser beam

IN Urano, Toshoshi; Yamaoka, Tsugio; Nagasaka, Hideki

PA Mitsubishi Chem Corp, Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-029

ICS G03F007-028

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

Section cross-reference(s): 37, 76

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 08220759 | A2 | 19960830 | JP 1995-28413 | 19950216 |
| PRAI | JP 1995-28413 | | 19950216 | | |

AB The **photopolymerizable** compn., comprising (1) .gtoreq.1
radical-generator selected from org. peroxides, onium salts,
hexaarylbiimidazoles, titanocene compds., heterocycles contg. .gtoreq.1 of
S, O, and N contg. polyhalomethyl group, and polyhalomethylsulfone
compds., (2) a compd. having .gtoreq.2 ethylenic unsatd. bonds, and (3) a
sensitizing dye, are simultaneously irradiated with a light for excitation
from the ground state and a light for excitation from the triplet state of
the sensitizer to form images. Clear images can be obtained by low power
laser or IR laser irradiation. The material is useful for manuf. of
lithog. plates and elec. circuits.

ST image forming material sensitizing dye; radical generator presensitized
lithog plate

IT **Lithographic** plates

(presensitized, **photopolymerizable** compd. contg. radial
generator, unsatd. compd. and sensitizing dye)

IT Resists

(radiation-sensitive, **photopolymerizable** compd. contg. radial
generator, unsatd. compd. and sensitizing dye)

IT 1707-68-2 6542-67-2 58109-40-3 77473-08-6 125051-32-3

RL: CAT (Catalyst use); USES (Uses)

(**photopolymerizable** compd. contg. radial generator, unsatd.
compd., and sensitizing dye)

IT 15625-89-5, Trimethylolpropane triacrylate 26936-24-3, Methyl
acrylate-methacrylic acid-methyl methacrylate copolymer

RL: POF (Polymer in formulation); TEM (Technical or engineered material
use); USES (Uses)

(**photopolymerizable** compd. contg. radial generator, unsatd.
compd., and sensitizing dye)

IT 63226-13-1 83179-50-4 162461-65-6

RL: MOA (Modifier or additive use); TEM (Technical or engineered material
use); USES (Uses)

(sensitizing dye; **photopolymerizable** compd. contg. radial

generator , unsatd. compd., and sensitizing dye)

L48 ANSWER 60 OF 78 CA COPYRIGHT 2003 ACS

AN 125:261311 CA

TI Water-developable **photosensitive** composition and
lithographic printing plate

IN Hatsutori, Ryoji; Kojima, Yasuo; Sasa, Nobumasa

PA Konishiroku Photo Ind, Japan

SO Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-004

ICS G03F007-00; G03F007-029; G03F007-033; G03F007-32

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--------------|------|----------|-----------------|----------|
| PI | JP 08190192 | A2 | 19960723 | JP 1995-2630 | 19950111 |
| PRAI | JP 1995-2630 | | 19950111 | | |

AB The compn. contains a polymerizable compd., a **photopolymn.**
initiator, an org. solvent-dispersible latex, and a phenol OH-, NH2-,
and/or CO-contg. compd. Alternatively the compn. contains a polymerizable
compd., a near IR-absorbing cationic dye borate coplex, and an
org. solvent-dispersible latex. The lithog. plate using the compn. is
also claimed. The compn. has improved storage stability.

ST **photosensitive** lithog plate water developable

IT **Lithographic** plates

(water-developable **photosensitive** compns. with storage
stability for lithog. printing plates)

IT 85-60-9, 4,4'-Butylidenebis(3-methyl-6-tert-butylphenol) 91-53-2
1843-05-6, 2-Hydroxy-4-octoxybenzophenone

RL: MOA (Modifier or additive use); USES (Uses)

(antioxidants; water-developable **photosensitive** compns. with
storage stability for lithog. printing plates)

IT 63226-13-1 141714-54-7 157186-53-3

RL: CAT (Catalyst use); USES (Uses)

(**photopolymn.** initiator; water-developable
photosensitive compns. with storage stability for lithog.
printing plates)

IT 3524-68-3, Pentaerythritol triacrylate 181815-80-5

RL: TEM (Technical or engineered material use); USES (Uses)

(water-developable **photosensitive** compns. with storage
stability for lithog. printing plates)

L48 ANSWER 61 OF 78 CA COPYRIGHT 2003 ACS

AN 125:127860 CA

TI **Photosensitive** material for **lithographic** plates and
method for making the plates

IN Maehashi, Tatsuichi; Matsumoto, Shinji; Kuroki, Takaaki; Kawakami, Sota

PA Konishiroku Photo Ind, Japan

SO Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-028

ICS G03F007-00; G03F007-027; G03F007-029; G03F007-20

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 08114916 | A2 | 19960507 | JP 1994-247968 | 19941013 |
| PRAI | JP 1994-247968 | | 19941013 | | |

- AB The **photosensitive** material comprises a hydrophilic support having thereon a **photosensitive** layer contg. a compd. having .gtoreq.1 ethylenic unsatd. bond, a binder, and a **photopolymn.** initiator and a protective layer and the **photopolymn.** initiator at least contains a salt of a cationic dye with an organoboron compd. anion and the other B salts at mol. ratio 1:2-5. Also claimed is a method for making lithog. plates by imagewise exposure of a **photosensitive** layer to laser followed by removal of the unexposed area of the protective layer and the **photosensitive** layer by dissoln. The cationic dye may be a near-IR-absorbing $R_1R_2C+(CH:CR_5)_m(CH:CH)_nCH:CR_3R_4$ X- [R1-5 = H, (un)substituted H, alkyl, cycloalkyl, aryl, aralkyl, styryl, heterocyclyl; m = 0, 1; n = 0-2; X- = B compd. anion]. The **photosensitive** material shows good storage stability.
- ST presensitized lithog plate laser sensitive; **photosensitive** compn presensitized lithog plate; cationic dye presensitized lithog plate; polymethine dye presensitized lithog plate
- IT Dyes
Dyes, cyanine
(near-IR-absorbing, near-IR-sensitive **photosensitive** compn. for lithog. plates contg. cationic dye organoboron salts and B salts as **photopolymn.** initiators)
- IT Polymerization catalysts
(photochem., near-IR-sensitive **photosensitive** compn. for lithog. plates contg. cationic dye organoboron salts and B salts as **photopolymn.** initiators)
- IT Lithographic plates
(presensitized, near-IR-sensitive **photosensitive** compn. for lithog. plates contg. cationic dye organoboron salts and B salts as **photopolymn.** initiators)
- IT 65859-86-1, Lithium butyltriphenylborate 120307-06-4, Tetrabutylammonium butyltriphenylborate 141714-54-7 141714-63-8 153146-33-9, Tetrabutylphosphonium butyltriphenylborate 157075-01-9 179128-74-6 179268-23-6
RL: CAT (Catalyst use); USES (Uses)
(near-IR-sensitive **photosensitive** compn. for lithog. plates contg. cationic dye organoboron salts and B salts as **photopolymn.** initiators)
- IT 26351-99-5 29570-58-9, Dipentaerythritol hexaacrylate
RL: TEM (Technical or engineered material use); USES (Uses)
(near-IR-sensitive **photosensitive** compn. for lithog. plates contg. cationic dye organoboron salts and B salts as **photopolymn.** initiators)
- L48 ANSWER 62 OF 78 CA COPYRIGHT 2003 ACS
- AN 124:356052 CA
- TI UV-sensitive polyarylates as **photolithographic** emulsions
- AU Noniewicz, Konrad; Brzozowski, Zbigniew K.; Zadrozna, Irmina
- CS Dep. Speciality Polymers, Warsaw Univ. Technology, Warsaw, 00-662, Pol.
- SO Journal of Applied Polymer Science (1996), 60(7), 1071-82
CODEN: JAPNAB; ISSN: 0021-8995
- PB Wiley
- DT Journal
- LA English
- CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35, 36
- AB Several UV-sensitive polyarylates based on bisbenzylideneketones for use as potential **photolithog.** emulsions were obtained by interfacial polycondensation. The structures of obtained UV-sensitive monomers and polymers were confirmed by IR, 1H-NMR, and UV spectroscopies. Mech. and dielec. properties of the obtained polyarylates (including dielec. loss factor, dielec. const., vol. and surface resistivity, and dielec. strength) were evaluated. The investigations show that some of the new polymers obtained in this study may find application as

photoresists.

ST photolithog photoresist photochem
interfacial condensation polymn; dielec loss tensile strength

IT photopolymer photoresist
Ultraviolet and visible spectra
(UV-sensitive polyarylates based on bisbenzylideneketones as
photoresists obtained by interfacial polycondensation)

IT Dielectric constant and dispersion
Dielectric loss
(dielec. properties of UV-sensitive polyarylates based on
bisbenzylideneketones as photoresists)

IT Polymerization
(interfacial, photochem., UV-sensitive polyarylates based on
bisbenzylideneketones as photoresists obtained by interfacial
polycondensation)

IT Lithography
Resists
(photo-, UV-sensitive polyarylates based on
bisbenzylideneketones as photoresists obtained by interfacial
polycondensation)

IT Crosslinking
(photochem., UV-sensitive polyarylates based on
bisbenzylideneketones as photoresists obtained by interfacial
polycondensation)

IT Molecular structure-property relationship
(tensile, UV-sensitive polyarylates based on bisbenzylideneketones as
photoresists obtained by interfacial polycondensation)

IT 56-37-1, Triethylbenzylammonium chloride
RL: CAT (Catalyst use); USES (Uses)
(UV-sensitive polyarylates based on bisbenzylideneketones as
photoresists obtained by interfacial polycondensation)

IT 39281-45-3P 39281-59-9P, Bisphenol A, benzenedicarboxylic acid,
copolymer, SRU 176854-00-5P 176854-02-7P 176854-03-8P 176854-04-9P
176854-06-1P 176854-08-3P 176854-09-4P 176854-10-7P 176854-11-8P
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or
engineered material use); PREP (Preparation); USES (Uses)
(UV-sensitive polyarylates based on bisbenzylideneketones as
photoresists obtained by interfacial polycondensation)

L48 ANSWER 63 OF 78 CA COPYRIGHT 2003 ACS

AN 123:354721 CA

TI Manufacture of planographic printing plates providing improved high
quality prints

IN Kudo, Shinji; Maehashi, Tatsuichi; Watanabe, Hiroshi; Komamura, Tawara

PA Konishiroku Photo Ind, Japan

SO Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-00

ICS G03F007-004; G03F007-34

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 07244373 | A2 | 19950919 | JP 1994-33826 | 19940303 |
| PRAI | JP 1994-33826 | | 19940303 | | |

AB The title manuf. involves (1) peel-developing a photosensitive
material comprised of a substrate, a photosensitive layer contg.
a polymerizable compd. and a photopolymn. initiator, and a cover
sheet and (2) transferring the developed images formed on the substrate or
the cover sheet onto a printing plate support, where the substrate and/or
the cover sheet is capable of transmitting an actinic ray. The
photosensitive layer may contain a cationic dye borate complex

and/or an org. borate capable of IR absorbing.
 ST planog printing plate peel development
 IT **Lithographic** plates
 Printing plates
 (planog., manuf. of planog. printing plates providing improved high
 quality prints)
 IT 136107-30-7 141714-54-7 162628-51-5D, Kayasorb CY 10, salt with
 butyltriphenyl borate
 RL: DEV (Device component use); USES (Uses)
 (photosensitive layer contg.)
 IT 25038-59-9, Poly(ethylene terephthalate), uses
 RL: DEV (Device component use); USES (Uses)
 (substrate of **photosensitive** material comprising)

L48 ANSWER 64 OF 78 CA COPYRIGHT 2003 ACS
 AN 123:127620 CA
 TI Method of forming a three-dimensional colored article
 IN McLean, Colin Henry; Gregory, Peter
 PA Zeneca Ltd., UK
 SO PCT Int. Appl., 19 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM B29C067-00
 ICS G03C009-08
 CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 9501257 | A1 | 19950112 | WO 1994-GB1427 | 19940701 |
| | W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| | AU 9470072 | A1 | 19950124 | AU 1994-70072 | 19940701 |
| | EP 706451 | A1 | 19960417 | EP 1994-918984 | 19940701 |
| | R: BE, CH, DE, DK, FR, GB, LI, NL | | | | |
| | JP 08512001 | T2 | 19961217 | JP 1994-503370 | 19940701 |
| PRAI | GB 1993-13723 | | 19930702 | | |
| | WO 1994-GB1427 | | 19940701 | | |
| AB | A method of forming a 3-dimensional article having .gtoreq.1 selectively colored zone comprises: (1) subjecting successive layers of a liq. photopolymerizable resin compn. contg. a color former, a developer and an IR absorber, to a programmed beam of electromagnetic radiation of a wavelength outside the IR region of the spectrum thereby effecting polymn. of the photopolymerizable resin compn. to form successive layers of solid substantially polymd. resin compn. and wherein adjacent layers become cohesively integrated as they are formed such that they define the structure of the 3-dimensional article, and (2) subjecting the photopolymerizable resin or each layer of the solid substantially polymd. resin compn. to a programmed beam of IR light thereby effecting color development or color change in .gtoreq.1 zones. | | | | |
| ST | colored article photopolymerizable compn | | | | |
| IT | Photoimaging compositions and processes (Method of forming a three-dimensional colored article) | | | | |
| IT | Lithography (stereo-, Method of forming a three-dimensional colored article) | | | | |
| IT | 80-05-7, uses 1552-42-7, Crystal violet lactone 26570-48-9, Sr 344 28961-43-5 41637-38-1, Ethoxylated Bisphenol A Dimethacrylate 109851-29-8 156930-26-6, Pro-Jet 900NP 165905-28-2 165943-63-5, NeoRad NR 2720 RL: MOA (Modifier or additive use); POF (Polymer in formulation); USES | | | | |

(Uses)
(stereo-lithog. photoimaging compn.)

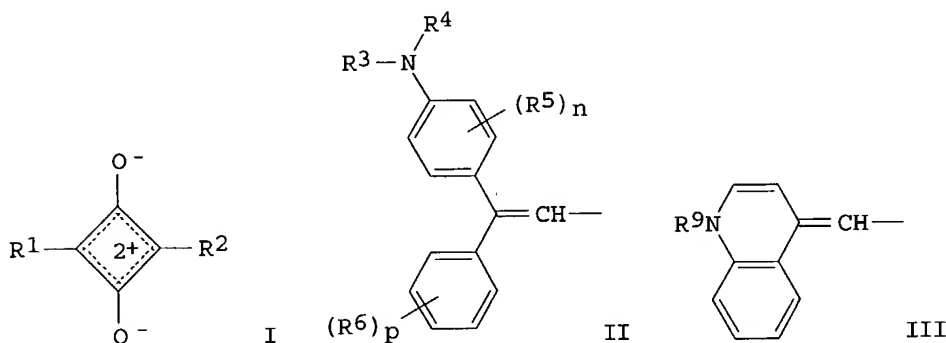
- L48 ANSWER 65 OF 78 CA COPYRIGHT 2003 ACS
AN 122:326138 CA
TI **Photochemical** transformation of C60 and C70 films
AU Eklund, P. C.; Rao, A. M.; Zhou, Ping; Wang, Ying; Holden, J. M.
CS Department of Physics and Astronomy, Center for Applied Energy Research,
University of Kentucky, Lexington, KY, 40506, USA
SO Thin Solid Films (1995), 257(2), 185-203
CODEN: THSFAP; ISSN: 0040-6090
PB Elsevier
DT Journal; General Review
LA English
CC 74-0 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
AB Thin solid films of C60 and C70 have been found to be sensitive to
UV-visible light. In the absence of oxygen, which acts as a triplet state
quencher, C60 and C70 have been obsd. to **phototransform** from a
toluene-sol. to a toluene-insol. state. This **phototransformation**
has been studied via Raman and FTIR spectroscopies, UV-visible
transmission spectroscopy and laser desorption mass spectroscopy. The
results of these expts. have been interpreted as evidence for a
phototransformation from a van der Waals solid to one in which the
fullerenes are linked by covalent bonds. For C60, it is proposed that a
transformation to a polymeric solid has occurred, whereas a similar flux
of UV-visible light applied to C70 is proposed to lead to a random
dimerization of the lattice and a much smaller population of higher
oligomers. For both **phototransformed** C60 and C70, the covalent
bonds between fullerenes can be broken thermally and the
phototransformed material returns to the pristine, toluene-sol.
state. UV-visible light can also be used to **photochem.** assist
the diffusion of dioxygen into the interstitial voids in the solid C60 and
C70 lattices. For C60, a **photochem.** enhancement of the O2
diffusion rate by a factor of .apprx.10 is obsd. by alpha particle
backscattering, leading to a stoichiometry of .apprx.C60O2. Similar to
C60-polyfullerene, C60(O2)x is also toluene insol. As a result, these
C60-based films might find **photolithog.** applications. A review
with 79 refs.
ST review **photopolymn** fullerene **photoenhanced** oxygen
diffusion
IT **Infrared** spectra
Photochemistry
Raman spectra
(**photopolymn.** and **photoenhanced** diffusion of oxygen
into interstitial voids in fullerene lattice)
IT Fullerenes
RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC
(Process); RACT (Reactant or reagent)
(**photopolymn.** and **photoenhanced** diffusion of oxygen
into interstitial voids in fullerene lattice)
IT **Lithography**
(**photo-**, **photopolymn.** and **photoenhanced**
diffusion of oxygen into interstitial voids in fullerene lattice)
IT Dimerization
Polymerization
(**photochem.**, **photopolymn.** and **photoenhanced**
diffusion of oxygen into interstitial voids in fullerene lattice)
IT 7782-44-7, Oxygen, reactions 99685-96-8, C60 Fullerene 115383-22-7,
Fullerene C70
RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC
(Process); RACT (Reactant or reagent)
(**photopolymn.** and **photoenhanced** diffusion of oxygen
into interstitial voids in fullerene lattice)

L48 ANSWER 66 OF 78 CA COPYRIGHT 2003 ACS
 AN 121:289655 CA
 TI **Photopolymerizable** composition containing squaraines
 IN Yamaoka, Tsuguo; Koseki, Kenichi; Obara, Mitsuharu; Shimizu, Ikuo; Ito, Yukiyoski; Kawato, Hitoshi
 PA Kyowa Hakko Kogyo Co., Ltd., Japan
 SO PCT Int. Appl., 37 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 IC ICM G03F007-031
 CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 3

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 9401806 | A1 | 19940120 | WO 1993-JP932 | 19930707 |
| | W: CA, JP, US | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | EP 611997 | A1 | 19940824 | EP 1993-914964 | 19930707 |
| | EP 611997 | B1 | 20030212 | | |
| | R: CH, DE, FR, GB, LI | | | | |
| | EP 1113335 | A1 | 20010704 | EP 2001-106388 | 19930707 |
| | R: CH, DE, FR, GB, LI | | | | |
| | JP 3202989 | B2 | 20010827 | JP 1994-503173 | 19930707 |
| PRAI | JP 1992-185224 | A | 19920713 | | |
| | EP 1993-914964 | A3 | 19930707 | | |
| | WO 1993-JP932 | W | 19930707 | | |

GI



AB The title **photopolymerizable** compn. contains an addn.-polymerizable compd. having .gtoreq.1 ethylenically unsatd. double bond (s), a free-radical generator, and a squarylium compd. I [R1, R2 = II (R3, 4 = H, alkyl, aryl, aralkyl; R5 = halo, alkyl, alkoxy, nitro, OH; n = 0-4; when n = 2-4, R5 may be the same or different; R6 = R5, CN, trifluoromethyl, NR7R8; R7, R8 = R3; p = 0-5, when p = 2-5, R6 may be the same or different), III (R9 = alkyl), etc.]. The compn. is highly sensitive to visible and near-IR rays, esp., a He-Ne laser, a light-emitting diode, a semiconductor laser, etc., each emitting light having a wavelength range >600 nm; the compn. is useful as the material of holograms, presensitized lithog. plates for laser direct platemaking, dry film resists, digital proof, **photosensitive** microcapsules, etc.

ST near **IR photopolymg** compn squaraine

IT Resists
 (photo-, dry-film; **photopolymerizable** compn. highly sensitive to visible and near-IR rays for)

IT **Photoimaging** compositions and processes

(photopolymerizable, photopolymerizable compn.
highly sensitive to visible and near-IR rays)

IT Lithographic plates
(presensitized, photopolymerizable compn. highly sensitive to
visible and near-IR rays for)

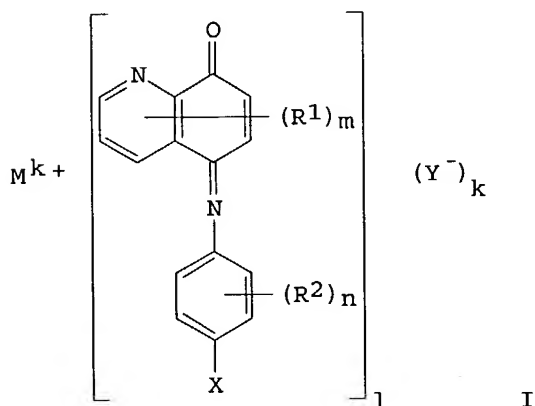
IT 3524-68-3, Pentaerythritol triacrylate 6542-67-2, 2, 4,
6-Tris(trichloromethyl)-s-triazine
RL: TEM (Technical or engineered material use); USES (Uses)
(photopolymerizable compn. highly sensitive to visible and
near-IR rays)

IT 156057-15-7 156057-17-9 159094-53-8 159094-54-9 159094-55-0
159094-56-1
RL: TEM (Technical or engineered material use); USES (Uses)
(prepn. of squaraines for photopolymerizable compn. highly
sensitive to visible and near-IR rays)

IT 135596-19-9 159094-57-2
RL: TEM (Technical or engineered material use); USES (Uses)
(squaraines for photopolymerizable compn. highly sensitive to
visible and near-IR rays)

L48 ANSWER 67 OF 78 CA COPYRIGHT 2003 ACS
AN 121:69570 CA
TI Photopolymerizable composition for printing platemaking
IN Komamura, Tawara; Watanabe, Hiroshi; Maehashi, Tatsuichi; Nakatani,
Koichi; Kato, Katsunori
PA Konishiroku Photo Ind, Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-029
ICS G03F007-00; G03F007-027; G03F007-028
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 05216227 | A2 | 19930827 | JP 1992-21321 | 19920206 |
| PRAI | JP 1992-21321 | | 19920206 | | |
| GI | | | | | |



AB The photopolymerizable compn. contains as photopolymn.
initiator, (I) [R1, R2 = H, halo, monovalent substituent; X = OH, NR3R4
(R3, R4 = H, alkyl); R2 and R3 or R4 may form a ring; Y- = anion; M =
transition element; k = 1-3; l = 2,3; m = 1-5; n = 1-4]. The
photopolymerizable compn. is esp. useful in presensitized lithog.

printing plates sensitive to visible and IR radiation.

ST lithog platemaking **photopolymerizable** compn; metal complex
initiator **photopolymerizable** compn

IT Polymerization catalysts
(**photo-**, metal complex)

IT **Lithographic** plates
(presensitized, **photosensitive** compn. for, IR
-sensitive)

IT 120307-06-4 153146-33-9 156060-41-2
RL: USES (Uses)
(metal complex salt contg., **photopolymn.** initiators from)

IT 7440-18-8D, Ruthenium, complexes with oxoquinoline derivs. 7440-48-4D,
Cobalt, complexes with oxoquinoline derivs. 153121-11-0D, cobalt
complexes 156074-15-6D, complexes with cobalt and ruthenium
156074-16-7D, ruthenium complexes 156074-17-8D, ruthenium complexes
156074-18-9D, ruthenium complexes 156188-89-5 156188-91-9
RL: USES (Uses)
(**photopolymn.** initiator)

L48 ANSWER 68 OF 78 CA COPYRIGHT 2003 ACS
AN 117:121305 CA
TI The synthesis and **photosensitivity** of eleostearic
acid-resorcinol series phenolic resins
AU Wang, Liyuan; Yu, Shangxian
CS Inst. Appl. Chem., Beijing Norm. Univ., Beijing, 100875, Peop. Rep. China
SO Journal of Photopolymer Science and Technology (1991), 4(1), 23-9
CODEN: JSTEEW; ISSN: 0914-9244
DT Journal
LA English
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
Section cross-reference(s): 37

AB A series of eleostearic acid(I)-resorcinol(II) phenolic resins were
synthesized, mainly including I-II CH2O resin (softening point:
70.apprx.75.degree.), Me eleostearate-II-CH2O resin (softening point:
65.apprx.70.degree.) N-hydroxyethyl eleostearic amide-II-CH2O (softening
point: 85.apprx.90.degree.). The relative mol. wts. detd. by
gel-permeation chromatog. method are Mn: 5.0 .times. 103.apprx.1.0 .times.
104, Mw: 1.0 .times. 104.apprx.4.0 .times. 104, d:3.0.apprx.6.0. The
reaction products were characterized by IR and elemental anal.
Photosensitivity was investigated of the **photopolymers**
formed from these phenolic resins and 2,6-bis(azidobenzal)-4-
methylcyclohexanone. These neg. **photoresists** can be developed
in dil. aq. base. The min. exposure energy required is 10.apprx.20
mJ/cm2. Clear etched image with 3 .mu.m line width was obtained. The
photocured films have excellent resistance to acids.

ST **photoresist** eleostearic acid resorcinol phenolic resin

IT Resists
(**photo-**, eleostearic acid-resorcinol-formaldehyde polymers
for)

IT **Lithography**
(**photo-**, synthesis and **photosensitivity** of
eleostearic acid-resorcinol phenolic resins for)

IT 5284-79-7
RL: USES (Uses)
(**photosensitivity** of **photoresists** contg.
eleostearic acid-resorcinol-formaldehyde polymers and)

IT 140622-97-5P 140636-75-5P
RL: PREP (Preparation)
(synthesis and **photosensitivity** and **photoresist**)

L48 ANSWER 69 OF 78 CA COPYRIGHT 2003 ACS
AN 113:123869 CA
TI Light-sensitive compositions
IN Kawamura, Kouichi; Matsumoto, Hirotaka; Yamaguchi, Jun

photopolymer surface, av. size of secondary formations in various parts of a printing element, and relative intensity of several absorption bands in the IR spectra of photopolymers, as functions of the no. of imprints. The wear begins with an intense mech. deterioration, working-in processes, increasing crystallinity, changes in supramol. structure, oxidn. degrdn., which continue until (75-100) .times. 103 printings. This stage is followed by stabilization and normal mechanochem. abrasive wear of the material until (300-350) .times. 103 printings. The last stage (>350 .times. 103 printings) is characterized by decreased crystallinity and increased oxidn. degrdn. The wear of plates was reduced by short-term thermodiffusional treatment in H2O-glycerol soln. contg. KI as a stabilizer and an inhibitor of thermopolymn.

ST photopolymer printing plate wear mechanism

IT Wear

(of photopolymeric printing plates, mechanism of)

IT Crystallinity

Surface structure

(of photopolymeric printing plates, wear mechanism in relation to)

IT Lithographic plates

(photopolymeric, wear mechanism and ways to increase durability of)

IT Polymer degradation

(oxidative, in wear of photopolymeric printing plates)

IT Printing plates

(photopolymerizable, wear mechanism and ways to increase durability of)

IT Polymer morphology

(surface, changes in, during wear of photopolymeric printing plates)

IT 56-81-5, uses and miscellaneous

RL: USES (Uses)

(thermodiffusional treatment of photopolymeric printing plates in aq. soln. contg. potassium iodide and, for improved durability)

IT 7681-11-0, uses and miscellaneous

RL: USES (Uses)

(thermodiffusional treatment of photopolymeric printing plates in aq.-glycerol soln. contg., for improved durability)

L48 ANSWER 73 OF 78 CA COPYRIGHT 2003 ACS

AN 99:30769 CA

TI Increasing the adhesion of organic photolithographic layers to inorganic surfaces

IN Lapcik, Lubomir; Blazej, Anton; Lodes, Antonin; Cappan, Michal; Valasek, Jaroslav; Zelenay, Emil; Mosny, Jan; Skyrta, Jan

PA Czech.

SO Czech., 6 pp.

CODEN: CZXXA9

DT Patent

LA Slovak

IC G03F007-16

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 76

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--------------|------|----------|-----------------|----------|
| PI | CS 201102 | B | 19801031 | CS 1979-2396 | 19790409 |
| PRAI | CS 1979-2396 | | 19790409 | | |

AB Adhesion of an org. photolithog. layer to inorg. surfaces (Al printing plates, semiconductor substrates, and the like) is increased by exposure of the inorg. surface to polychromatic electromagnetic radiation ($\lambda = 0.01-100 \mu\text{m}$; $0.01-100 \text{ W/cm}^2$) before coating of the org.

layer in soln. and/or a **photosensitizer** (PhCHO, PhCOCl, or PhCOBr). A vacuum chamber for this procedure, with a rotating carrier for the support to be treated, sources of IR and UV radiation, and inlets of gas and liqs., is described. Thus, a Si disk (diam. 37 mm) with a 0.5 μm SiO₂ layer was rotated (4000 rpm) and irradiated with a 200 W IR source and a 500 W UV lamp in vacuum for 3 min, coated with a soln. of 0.5 mL 0.01M PhCHO in heptane, UV irradiated for 3 min, and overcoated with a light-sensitive polymer varnish.

ST **photolithog** polymer adhesion promotion

IT Adhesion

(of **photolithog. photosensitive** polymeric material, to inorg. supports, enhancement of)

IT **Infrared** radiation, chemical and physical effects

Ultraviolet radiation, chemical and physical effects

(on adhesion of **photolithog. photosensitive**

polymeric material to inorg. supports)

IT Electric circuits

(**photopolymeric** materials for prepn. of, enhancement of adhesion of)

IT Printing plates

(**photopolymeric** systems for prodn. of, enhancement of adhesion of)

IT **Lithography**

(**photo-**, adhesion enhancement of **photosensitive** layer to substrate for)

IT Resists

(**photo-**, adhesion enhancement of polymeric, to inorg. supports)

IT 98-88-4 100-52-7, properties 618-32-6

RL: USES (Uses)

(adhesion of **photolithog.** assembly contg. layer of, to silicon disk, enhancement of)

IT 7440-21-3, properties

RL: PRP (Properties)

(**photolithog. photosensitive** polymeric compn. adhesion to disk of, enhancement of)

IT 7429-90-5, uses and miscellaneous

RL: USES (Uses)

(printing plate supports from, adhesion enhancement of **photopolymeric** systems to)

L48 ANSWER 74 OF 78 CA COPYRIGHT 2003 ACS

AN 97:64096 CA

TI Analysis of **photopolymers** on electrochemically roughened and anodized aluminum plates by fourier transform **infrared** reflection absorption spectrometry

AU Yamamoto, Takeshi; Kitaura, Takeshi; Shimomura, Masaki; Matsui, Tomoko; Tanaka, Shigeyuki

CS Res. Lab., Konishiroku Photo. Ind. Co., Ltd., Hino, 191, Japan

SO Nippon Kagaku Kaishi (1982), (5), 727-31

CODEN: NKAKB8; ISSN: 0369-4577

DT Journal

LA Japanese

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 73

AB **Photopolymers** on Al plates were studied by reflection absorption spectrometry using a Fourier transform IR spectrometer. Samples were prepd. by coating **photopolymers**, viz, diazo resin type polymer (mixt. of a copolymer of 2-hydroxyethyl methacrylate, methacrylic acid, etc. and a copolymer of 4-diazoniodiphenylamine chloride and HCHD) or poly(vinyl cinnamate) on the electrochem. roughened and anodized Al plates (roughness value; R_z = 4.8 μm , R_{max} = 5.6 μm , R_a = 0.7 μm , R_s = 0.9 μm , the quantity of Al oxide 0.15 mg/cm²). These samples are widely used as presensitized offset printing plates (PS plates) in the

printing industry. Spectra of the samples before and after light exposure were measured, and these spectral ratios were calcd. and spectral changes with exposure were detected for both **photopolymers**. The relationship between the exposed energy and the amt. of **photochem** reacted polymers was obtained using some key bands, which were 1730, 1710, and 1630 cm^{-1} for poly(vinyl cinnamate), and 1580 and 1110 cm^{-1} for diazo resin. All the amt. of diazo resin on the Al plate reacted completely after std. exposure, but on the other hand, only 25% of poly(vinyl cinnamate) reacted. Relations between the quantity of diazo resin type polymers and the intensity of both bands at 1720 cm^{-1} and at 1480 cm^{-1} which are independent of **photochem**. changes, were examd., and the linear relationships were found so far as the quantity was less than 100 $\mu\text{g}/\text{cm}^2$ (1720 cm^{-1}), and less than 200 $\mu\text{g}/\text{cm}^2$ (1480 cm^{-1}). A characteristic curve of the diazo resin type PS plate was established. Very small amt. of the diazo resin type polymer (.apprx.3 $\mu\text{g}/\text{cm}^2$) on nonimage area remaining after exposure and development was detected for the 1st time, and the effect of this residue on scumming which occurs during long-run printing is discussed.

ST **photopolymer** printing plate IR spectra

IT **Lithographic** plates

(Fourier transformed IR reflection spectra of **photopolymers** on aluminum)

IT Vinyl compounds, polymers

RL: USES (Uses)

(polymers, Fourier transform IR reflection spectra of, on aluminum lithog. plates)

IT **Infrared** spectra

(reflection, of **photopolymers** on electrochem. roughened and anodized aluminum plates)

IT 24968-99-8 30939-08-3

RL: PRP (Properties)

(IR reflection spectra of, on aluminum lithog. plates)

L48 ANSWER 75 OF 78 CA COPYRIGHT 2003 ACS

AN 90:178195 CA

TI **Photopolymer** formation

IN Kurita, Yoshio

PA Konishiroku Photo Industry Co., Ltd., Japan

SO Ger. Offen., 50 pp.

CODEN: GWXXBX

DT Patent

LA German

IC G03C001-68

CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | DE 2824928 | A1 | 19781214 | DE 1978-2824928 | 19780607 |
| | JP 54002720 | A2 | 19790110 | JP 1977-68075 | 19770608 |
| | JP 57012136 | B4 | 19820309 | | |
| | GB 1604869 | A | 19811216 | GB 1978-24773 | 19780531 |
| | US 4251619 | A | 19810217 | US 1979-105540 | 19791220 |
| PRAI | JP 1977-68075 | | 19770608 | | |
| | US 1978-913213 | | 19780606 | | |

AB **Photopolymerizable** compns. of high sensitivity and which give a polymer image with outstanding phys., chem., and **photog.** characteristics are composed of an activating component, such as a free-radical forming org. halogen compd., a light-sensitive resin, and a colorizable or decolorizable component, such as a dye. Thus, a soln. contg. Eslec BLS [poly(vinyl butyral)] 1.0, ethylene glycol dimethacrylate 0.6, tribromomethyl Ph sulfone 0.2, N-vinylcarbazole 0.3 g, p-methoxyphenol 6, 4-(p-dimethylaminostyryl)quinoline 20 mg, and Me₂CO 20 mL was coated under safelight conditions on a poly(ethylene terephthalate) support, dried (dry thickness 5 μm), a polyethylene top layer laminated thereon, and the material exposed through a pos. original for 6 s with a 2

kW high-pressure Hg lamp. Subsequently the whole surface of the material was exposed to a 250-W IR lamp having a yellow filter. A violet image resulted. The polyethylene film was then removed and a paper contacted with the light-sensitive layer for 3 s at 100.degree.. Upon removal of the paper, the nonexposed portion of the image remained adhered to the paper and was then toned to give a pos. image.

- ST **photopolymer** image formation; imaging **photosensitive** polymer
- IT **Photoimaging** compositions and processes
(contg. colorizable or decolorizable component, free-radical forming org. halogen compd., and light-sensitive resin)
- IT **Lithographic** plates
(**photopolymerizable** compns. contg. colorizable or decolorizable component, free-radical forming org. halogen compd. and light-sensitive resin for)
- IT Vinyl acetal polymers
RL: USES (Uses)
(butyrals, **photopolymerizable** compns. contg., for image formation)
- IT Dyes
(leuco, **photopolymerizable** compns. contg., for image formation)
- IT Electric circuits
(printed, **photopolymerizable** compns. contg. colorizable or decolorizable component, free-radical forming org. halogen compd., and light-sensitive resin for fabrication of)
- IT 75-95-6 86-93-1 90-94-8 97-90-5 100-10-7 102-54-5 119-58-4
123-31-9, uses and miscellaneous 128-39-2 129-73-7 150-76-5
558-13-4 603-48-5 897-55-2 1003-67-4 1484-13-5 1484-88-4
1628-58-6 3127-41-1 3524-68-3 5459-38-1 7402-45-1 9003-53-6
9004-57-3 9011-14-7 17025-47-7 31303-63-6 51202-80-3 70021-90-8
70021-91-9D, benzals with poly(vinyl alc.)
RL: USES (Uses)
(**photopolymerizable** compns. contg., for image formation)

L48 ANSWER 76 OF 78 CA COPYRIGHT 2003 ACS

AN 86:198013 CA

TI Dry positive **photopolymer** imaging process involving heating and application of toner

IN Schlesinger, Sheldon I.; Boszak, Ronald J.

PA American Can Co., USA

SO U.S., 8 pp.

CODEN: USXXAM

DT Patent

LA English

IC G03F007-08

NCL 096033000

CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | US 3997344 | A | 19761214 | US 1974-486169 | 19740705 |
| | US 4054732 | A | 19771018 | US 1976-690308 | 19760526 |
| PRAI | US 1974-486169 | | 19740705 | | |

AB **Photocrosslinkable** polymeric layers contg. a polymer prepd. from glycidyl acrylate (and methacrylate if desired) and alkyl glycidyl ether and an aryldiazonium salt of a complex halide, which releases a catalyst for cross-linking upon exposure, are imagewise exposed, heated to the softening-tacky point of the nonexposed areas, and dusted with toner powder which adheres only to the nonexposed tacky areas. Thus, a Mylar support was coated with a compn. contg. glycidyl acrylate-allyl glycidyl ether polymer 9, butyronitrile 75.9, o-chlorotoluene 15.2, and 2,5-diethoxy-4-(p-tolylthio)benzenediazonium hexafluorophosphate 0.45 g, exposed for 0.5-1 s at 22cm from a 360 W Gates Raymaster Uriarc lamp through a transparency, heated for 15 s at 60-70.degree. under an

IR heat lamp, dusted with Xerox 917 copier toner, and brushed with a pad of absorbent cotton to give a black pos. reprod. of the original.

ST **photopolymer** dry imaging toner

IT **Lithographic plates**
Photoduplication
 (photohardenable glycidyl acrylate-allyl glycidyl ether polymeric layers contg. aryldiazonium salt catalyst precursor for, dry toner development of tacky nonimage areas in)

IT **Photoimaging compositions and processes**
 (photocrosslinkable, contg. glycidyl acrylate-allyl glycidyl ether polymer and aryldiazonium salt catalyst precursor for pos. image formation)

IT 63023-15-4
 RL: USES (Uses)
 (photohardenable compn. contg., for pos. image formation)

IT 38686-70-3
 RL: USES (Uses)
 (photoimaging comp. contg. glycidyl acrylate-allyl glycidyl ether polymer and)

IT 63027-27-0 63027-28-1
 RL: USES (Uses)
 (photoimaging compn. contg. aryldiazonium salt catalyst precursor and, for dry toner-developed pos. copies)

L48 ANSWER 77 OF 78 CA COPYRIGHT 2003 ACS
 AN 72:116817 CA
 TI **Photographic** production of printing plates and relief images
 IN Williams-Foxcroft, Stanley G.
 PA Foxcroft Inventions (Proprietary) Ltd.
 SO Brit., 7 pp.
 CODEN: BRXXAA
 DT Patent
 LA English
 IC G03C
 CC 74 (Radiation Chemistry, Photochemistry, and Photographic Processes)
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|--|------|----------|-----------------|----------|
| PI | GB 1181114 | | 19700211 | GB | 19670616 |
| AB | Relief images are produced by placing a backing sheet and a transparency bearing an opaque image in spaced and parallel relation with the space between the backing sheet and transparency filled with light-hardening, fluid polymerizable material, locating an ir-absorbing uv-transmitting filter above the transparency, projecting uv-radiation from a strong source through the filter and nonopaque portions of the transparency, and sepg. the fluid material from the hardened material. The surface of the backing sheet is pretreated with an epoxy resin-hardener-polyester resin mixt. to ensure good adhesion of the hardened polymer. A typical light-hardening polymerizable layer is prep. from a mixt. contg. polyester resins 14, isophthalic polyester resins 2, catalyst (U.V. 50) 1, and styrene monomer 2 parts. | | | | |
| ST | photographic polyesters; lithographic polyesters; polyesters photopolymers; printing plates photopolymers; plates printing photopolymers; photopolymers printing plates; relief images | | | | |
| IT | Printing (plates, photopolymerizable compns. for relief) | | | | |

L48 ANSWER 78 OF 78 CA COPYRIGHT 2003 ACS
 AN 65:53609 CA
 OREF 65:10003c-d
 TI **Lithographic** printing plates and their preparation
 IN Wiswell, Charles M.
 PA S. D. Warren Co.
 SO 4 pp.

DT Patent
LA Unavailable
NCL 101149200
CC 11 (Radiation Chemistry and Photochemistry)
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|--|------|----------|-----------------|----------|
| PI | US 3259061 | | 19660705 | US | 19640311 |
| AB | A lithographic printing plate is prepd. by placing a flexible sheet with surface layer of delayed-tack resin face-to-face with a sheet bearing a heat-absorptive image on a less heat-absorptive background, irradiating the image with ir until the image is softened and rendered tacky in the delayed-tack resin, thereby forming an inverted image. The inverted image is cooled below its fusion temp., and the tacky inverted image is placed in face-to-face contact with a lithographic plate to transfer the inverted image to the lithographic plate as a direct oleophilic image. | | | | |
| IT | Lithography (plates for, by transfer of tacky image to heat-sensitive resin compn.) | | | | |
| IT | Printing (plates, by photopolymerization, and of easy repair) | | | | |

=> log y

COST IN U.S. DOLLARS

| SINCE FILE | TOTAL |
|------------|---------|
| ENTRY | SESSION |
| 339.90 | 834.39 |

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

| SINCE FILE | TOTAL |
|------------|---------|
| ENTRY | SESSION |
| -60.14 | -62.00 |

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| NEWS 3 | Jun 03 | New e-mail delivery for search results now available |
| NEWS 4 | Aug 08 | PHARMAMarketLetter(PHARMAML) - new on STN |
| NEWS 5 | Aug 19 | Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN |
| NEWS 6 | Aug 26 | Sequence searching in REGISTRY enhanced |
| NEWS 7 | Sep 03 | JAPIO has been reloaded and enhanced |
| NEWS 8 | Sep 16 | Experimental properties added to the REGISTRY file |
| NEWS 9 | Sep 16 | CA Section Thesaurus available in CAPLUS and CA |
| NEWS 10 | Oct 01 | CASREACT Enriched with Reactions from 1907 to 1985 |
| NEWS 11 | Oct 24 | BEILSTEIN adds new search fields |
| NEWS 12 | Oct 24 | Nutraceuticals International (NUTRACEUT) now available on STN |
| NEWS 13 | Nov 18 | DKILIT has been renamed APOLLIT |
| NEWS 14 | Nov 25 | More calculated properties added to REGISTRY |
| NEWS 15 | Dec 04 | CSA files on STN |
| NEWS 16 | Dec 17 | PCTFULL now covers WP/PCT Applications from 1978 to date |

NEWS 17 Dec 17 TOXCENTER enhanced with additional content
 NEWS 18 Dec 17 Adis Clinical Trials Insight now available on STN
 NEWS 19 Jan 29 Simultaneous left and right truncation added to COMPENDEX,
 ENERGY, INSPEC
 NEWS 20 Feb 13 CANCERLIT is no longer being updated
 NEWS 21 Feb 24 METADEX enhancements
 NEWS 22 Feb 24 PCTGEN now available on STN
 NEWS 23 Feb 24 TEMA now available on STN
 NEWS 24 Feb 26 NTIS now allows simultaneous left and right truncation
 NEWS 25 Feb 26 PCTFULL now contains images
 NEWS 26 Mar 04 SDI PACKAGE for monthly delivery of multifile SDI results
 NEWS 27 Mar 19 APOLLIT offering free connect time in April 2003
 NEWS 28 Mar 20 EVENTLINE will be removed from STN
 NEWS 29 Mar 24 PATDPAFULL now available on STN
 NEWS 30 Mar 24 Additional information for trade-named substances without
 structures available in REGISTRY
 NEWS 31 Apr 11 Display formats in DGENE enhanced
 NEWS 32 Apr 14 MEDLINE Reload
 NEWS 33 Apr 17 Polymer searching in REGISTRY enhanced
 NEWS 34 Apr 21 Indexing from 1947 to 1956 being added to records in CA/CAPLUS
 NEWS 35 Apr 21 New current-awareness alert (SDI) frequency in
 WPIDS/WPINDEX/WPIX
 NEWS 36 Apr 28 RDISCLOSURE now available on STN

NEWS EXPRESS April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT
 MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
 AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003

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Sandblasting

(light-sensitive resin compn. for dry resist film developable with visible light and resistant towards sand blasting and method for cutting material applied with same according to sand blasting)

IT 9004-38-0, KC 71 9050-31-1, HP 55 25086-15-1, Methacrylic acid/methyl methacrylate copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(alkali polymerizable resin; light-sensitive resin compn. for dry resist film developable with visible light and resistant towards sand blasting)

IT 118996-06-8 120307-06-4, Tetrabutylammonium butyltriphenylborate
211675-36-4, Tetrabutylammonium butyltri(4-methyl-1-naphthyl)borate
219125-19-6, Tetrabutylammonium butyltri(1-naphthyl)borate 219125-21-0
219125-22-1, 3,7-Diamino-2,8-dimethyl-5-phenylphenazinium tetrafluoroborate

RL: CAT (Catalyst use); USES (Uses)
(borate compd.; light-sensitive resin compn. for dry resist film developable with visible light and resistant towards sand blasting)

IT 989-38-8, Basic Red 1 4657-00-5, Basic Orange 22 12217-48-0, Basic Red 14

RL: TEM (Technical or engineered material use); USES (Uses)
(sensitizing dye; light-sensitive resin compn. for dry resist film developable with visible light and resistant towards sand blasting)

IT 178359-46-1, KRM 7222 190673-86-0, Shikoh UV 9510EA 216680-53-4, UAS-C 9PMA 216680-57-8, Shikoh UT 2313 216680-60-3, Shikoh UV 9532

RL: TEM (Technical or engineered material use); USES (Uses)
(urethane acrylate; light-sensitive resin compn. for dry resist film developable with visible light and resistant towards sand blasting)

L1 ANSWER 2 OF 9 CA COPYRIGHT 2003 ACS

AN 130:45295 CA

TI Photosensitive resin composition with improved sandblast resistance, dry film using it, and cutting method using them

IN Obitani, Hiroyuki

PA Tokyo Ohka Kogyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-027

ICS G03F007-029; G03F007-40; H01J011-02

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 10293400 | A2 | 19981104 | JP 1997-116170 | 19970418 |
| PRAI | JP 1997-116170 | | 19970418 | | |

AB The photosensitive resin compn., which is exposed to visible light, comprises (a) urethane (meth)acrylates with .gtoreq.2 (meth)acryloyl group, (b) an alkali sol. polymer with 50-250 mg/KOH acid value, and (c) a titanocene and .gtoreq.1 of an acridine and a triazine as a polymn. initiator component. The dry film comprises a support subsequently having thereon a coated layer with sandblast resistance comprising the photosensitive resin compn. and a protective layer. A processable material is cut by the following processes: (1)the photosensitive resin compn. is laminated on the material; (2) the photosensitive resin layer is imagewise exposed directly by visible light, (3) the layer is developed and selectively removed to form a pattern; (4) the material is cut through the pattern mask by a sandblast processing. The compn. shows high elasticity and flexibility, superior alkali developability and adhesion to the material and is useful for sandblast mask.

ST photoresist sandblast mask; urethane acrylate alkali soluble polymer

photoresist; photopolymn initiator titanocene acridine triazine
photoresist

IT Polyurethanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(acrylic; photoresist compn. contg. urethane acrylate and alkali-sol.
polymer useful for sandblast mask)

IT Polymerization catalysts
(photopolymn.; photoresist contg. titanocene, acridine and/or triazine
compd. as photopolymn. initiator)

IT Photoresists
Sandblasting
(photoresist compn. contg. urethane acrylate and alkali-sol. polymer
useful for sandblast mask)

IT 9004-38-0, KC 71 9050-31-1, HP 55 15625-89-5,
Trimethylolpropane triacrylate 178359-46-1, KRM 7222 190673-86-0, UV
9510EA 216680-53-4, UAS-C 9PMA 216680-57-8, Shikoh UT 2313
216680-60-3, UV 9532
RL: TEM (Technical or engineered material use); USES (Uses)
(photoresist compn. contg. urethane acrylate and alkali-sol. polymer
useful for sandblast mask)

IT 602-56-2, 9-Phenylacridine 93709-38-7 172600-80-5
RL: CAT (Catalyst use); USES (Uses)
(photoresist contg. titanocene, acridine and/or triazine compd. as
photopolymn. initiator)

L1 ANSWER 3 OF 9 CA COPYRIGHT 2003 ACS
AN 127:42258 CA
TI Photosensitive resin composition and photosensitive resin laminated film
containing the same
IN Obiya, Hiroyuki; Mizusawa, Ryuma
PA Tokyo Ohka Kogyo Co., Ltd., Japan
SO Eur. Pat. Appl., 25 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM G03F007-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|------------------|----------|
| PI | EP 770923 | A1 | 19970502 | EP 1996-117273 | 19961028 |
| | EP 770923 | B1 | 20020327 | | |
| | R: DE, FR, GB | | | | |
| | JP 09127692 | A2 | 19970516 | JP 1995-303921 | 19951027 |
| | JP 09152713 | A2 | 19970610 | JP 1995-336217 | 19951130 |
| | TW 475098 | B | 20020201 | TW 1996-85113079 | 19961024 |
| | US 5776995 | A | 19980707 | US 1996-738079 | 19961025 |
| | US 5919569 | A | 19990706 | US 1997-971585 | 19971117 |
| PRAI | JP 1995-303921 | A | 19951027 | | |
| | JP 1995-336217 | A | 19951130 | | |
| | US 1996-738079 | A3 | 19961025 | | |

AB A photosensitive resin compn. comprises (A) a photopolymerizable urethane
(meth)acrylate compd. contg. at least two acryloyl or methacryloyl groups,
(B) an alkali-sol. polymer compd. having an acid value
of from 50 to 250 mgKOH/g, and (C) a photopolymn. initiator, wherein the
photosensitive resin compn. has an elec. insulation resistance of 8.0×10^9
to 1.0×10^{14} .OMEGA..cntdot.cm after photocuring. A photosensitive resin
laminated film comprises a flexible film, a photosensitive layer provided
on the flexible film, and a releasable film layer provided on the
photosensitive layer, wherein the photosensitive layer comprises the above
photosensitive resin compn.

ST photoresist photopolymerizable urethane acrylate sandblast mask

IT Polyurethanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)

(acrylates; sandblast mask prepn. using photopolymerizable compns. contg. alkali-sol. polymers and)

IT Sandblasting
(masks; photopolymerizable compns. contg. urethane (meth)acrylates and alkali-sol. polymers for)

IT Photoresists
(photopolymerizable; contg. urethane (meth)acrylates and alkali-sol. polymers)

IT Polyoxyalkylenes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(sandblast mask prepn. using photopolymerizable compns. contg. alkali-sol. polymers and)

IT 9004-38-0, Cellulose acetate phthalate 21245-01-2 25322-69-4
32760-80-8, Irgacure 261 68015-88-3, 4-Morpholino-2,5-dibutoxybenzenediazonium hexafluorophosphate 76293-13-5,
2,4-Dimethylthioxanthone 118690-08-7, Irgacure 500 178359-46-1, KRM 7222 190521-29-0 190673-83-7, UA-T 01 190673-85-9, Shikoh UT 9510 190673-86-0, Shikoh UV 9510EA
RL: TEM (Technical or engineered material use); USES (Uses)
(sandblast mask prepn. using photopolymerizable compns. contg. alkali-sol. polymers and)

L1 ANSWER 4 OF 9 CA COPYRIGHT 2003 ACS
AN 126:67499 CA
TI Photosensitive resin composition for sandblast resist
IN Takehana, Hiroshi; Yamamoto, Tetsuo; Obiya, Hiroyukio; Mizusawa, Ryuma
PA Matsushita Electronics Corporation, Japan; Tokyo Ohka Kogyo Co., Ltd.
SO Eur. Pat. Appl., 14 pp.
CODEN: EPXXDW

DT Patent
LA English
IC ICM G03F007-027
ICS B24C001-04

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|----------|------------------|----------|
| | ----- | ---- | ----- | ----- | ----- |
| PI | EP 741332 | A1 | 19961106 | EP 1996-302975 | 19960426 |
| | EP 741332 | B1 | 20000809 | | |
| | R: DE, FR, GB, NL | | | | |
| | JP 08305017 | A2 | 19961122 | JP 1995-107703 | 19950501 |
| | US 5756261 | A | 19980526 | US 1996-638189 | 19960426 |
| | TW 439014 | B | 20010607 | TW 1996-85105015 | 19960426 |
| | CN 1140843 | A | 19970122 | CN 1996-108446 | 19960501 |
| | CN 1082679 | B | 20020410 | | |
| | US 5916738 | A | 19990629 | US 1998-18729 | 19980204 |
| PRAI | JP 1995-107703 | A | 19950501 | | |
| | US 1996-638189 | A3 | 19960426 | | |

AB A photosensitive resin compn. suitable as a resist material against sandblasting for patternwise engraving of the surface of a body after photolithog. patterning comprises (a) a urethane compd. having a (meth)acrylate group at the mol. end, which is obtained from a polyether or polyester compd. having a hydroxy group at the mol. chain end, a diisocyanate compd., and a (meth)acrylate compd. having a hydroxy group, (b) an alkali-sol. polymeric compd. having an acid value in the range from 50 to 250 mg KOH/g, and (c) a photopolymn. initiator.

ST photoresist compn urethane acrylate sandblasting mask

IT Polyurethanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(acrylates; photosensitive resin compns. for sandblasting mask prepn. contg.)

IT Photoresists
(contg. urethane acrylates for sandblasting mask prepn.)

IT Sandblasting

(masks; photosensitive resin compns. for prepn. of)
 IT 9004-38-0, Cellulose acetate phthalate 15625-89-5,
 Trimethylolpropane triacrylate 24650-42-8 26182-64-9,
 Acrylonitrile-butyl methacrylate-methacrylic acid copolymer 68224-29-3,
 Hexamethylene diisocyanate-2-hydroxyethyl methacrylate-polyethylene glycol
 copolymer 75980-60-8, 2,4,6-Trimethylbenzoyldiphenylphosphine oxide
 76246-04-3, .epsilon.-Caprolactone-hexamethylene diisocyanate-2-
 hydroxyethyl acrylate copolymer 82799-44-8, 2,4-Diethylthioxanthone
 185250-85-5, Adipic acid-2,2-bis(hydroxymethyl)propionic
 acid-2-hydroxyethyl acrylate-isophorone diisocyanate-propylene glycol
 copolymer 185250-89-9, Hexamethylene diisocyanate-1,6-hexanediol-2-
 hydroxyethyl acrylate-succinic anhydride copolymer 185250-91-3
 RL: TEM (Technical or engineered material use); USES (Uses)
 (photosensitive resin compns. for sandblasting mask prepn. contg.)

L1 ANSWER 5 OF 9 CA COPYRIGHT 2003 ACS
 AN 125:71878 CA
 TI Photosensitive resin compositions and photosensitive dry films using them
 IN Obitani, Hiroyuki; Saito, Akihiko; Mizusawa, Tatsuma
 PA Tokyo Ohka Kogyo Co Ltd, Japan
 SO Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03F007-027
 ICS G03F007-027; B32B027-30; G03F007-004; G03F007-028; G03F007-033
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 08054734 | A2 | 19960227 | JP 1994-211861 | 19940812 |
| PRAI | JP 1994-211861 | | 19940812 | | |

AB The title compns. contain a carboxy-modified urethane (meth)acrylate
 having .gtoreq.2 (meth)acryloyl groups, an **acid value**
 of 20-70 mg/KOH, and a glass transition temp. (Tg) of 5-95.degree. after
 hardening, an alkali-sol. polymer having an **acid value**
 of 50-250 mg/KOH, and a photopolymn. initiator. The compns. are capable
 of forming films on glasses, ceramics, phosphors, etc. and show good
 uniformity in thickness, adhesion, storage stability, alkali-
 developability, and resistance to sandblast. The dry films, comprising a
 layer made of the compns. and sandwiched by flexible and releasing films,
 are also claimed. Thus, a photosensitive resin compn. comprised Shikoh
 UT-9510EA (carboxy-modified urethane acrylate; **acid**
value 40 mg/KOH; Tg 63.degree.), KC-71 (cellulose acetate
 phthalate; **acid value** 120 mg/KOH), trimethylolpropane
 triacrylate, and Lucirin TPO (photopolymn. initiator).

ST photosensitive resin compn urethane acrylate; alkali sol resin
 photosensitive compn; photopolymn initiator photosensitive resin compn;
 modified urethane acrylate photosensitive compn; sandblast resistance
 photosensitive dry film

IT Photoimaging compositions and processes
 (photosensitive dry films contg. modified urethane acrylate compds. for
 sandblast resistance)

IT Urethane polymers, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (acrylic, carboxy-modified; photosensitive dry films contg. modified
 urethane acrylate compds. for sandblast resistance)

IT Acrylic polymers, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (polyurethane-, carboxy-modified; photosensitive dry films contg.
 modified urethane acrylate compds. for sandblast resistance)

IT 9004-38-0, KC 71
 RL: TEM (Technical or engineered material use); USES (Uses)
 (cellulose acetate phthalate; photosensitive dry films contg. modified

urethane acrylate compds. for sandblast resistance)

IT 119-61-9, Benzophenone, uses 947-19-3, 1-Hydroxycyclohexylphenylketone
75980-60-8, Lucirin TPO 100752-97-4, Diethylthioxanthone
RL: MOA (Modifier or additive use); USES (Uses)
(photopolymn. initiator; photosensitive dry films contg. modified
urethane acrylate compds. for sandblast resistance)

IT 110-17-8D, Fumaric acid, reaction products with pentaerythritol acrylates
3524-68-3D, Pentaerythritol triacrylate, reaction products with fumaric
acid 15625-89-5, Trimethylolpropane triacrylate 35326-25-1,
Acrylonitrile-butyl methacrylate-methyl methacrylate copolymer
178359-46-1, KRM 7222 178359-57-4, Shikoh UT 1777 178359-58-5, Shikoh
UT 1790 178359-59-6, Shikoh UT 9510EA
RL: TEM (Technical or engineered material use); USES (Uses)
(photosensitive dry films contg. modified urethane acrylate compds. for
sandblast resistance)

L1 ANSWER 6 OF 9 CA COPYRIGHT 2003 ACS
AN 116:27996 CA
TI Concept and development of ophthalmic pseudo-latexes triggered by pH
AU Ibrahim, H.; Bindschaedler, C.; Doelker, E.; Buri, P.; Gurny, R.
CS Sch. Pharm., Univ. Geneva, Geneva, 1211, Switz.
SO International Journal of Pharmaceutics (1991), 77(2-3), 211-19
CODEN: IJPHDE; ISSN: 0378-5173
DT Journal
LA English
CC 63-5 (Pharmaceuticals)
AB The apparent pKa, acid value and max. buffer capacity
were calcd. for various polyacids generally utilized for enteric coating,
in order to select a polymeric model compd. for the prepn. of
pseudo-latexes triggered by pH for ophthalmic application. The soly. of
the selected polymer (cellulose acetate phthalate) was estd. from a
ternary plot of its solvents vs. fractional soly. parameters.
Pseudo-latexes were prepd. by emulsification of various org. polymer
solns. and removal of the solvents by vacuum distn. The viscosity
behavior of 30% by wt. pseudo-latexes was simulated in vitro to show the
sharp and high increase of their viscosity vs. pH.

ST ophthalmic polymer pseudolatex pH
IT Solution rate
(of polymers for pseudolatexes for ophthalmic use, lacrimal pH
triggering in relation to)

IT Ionization in liquids
Viscosity
(of polymers in pseudolatexes for ophthalmic use, lacrimal pH
triggering in relation to)

IT pH
(of tears, ophthalmic polymer pseudolatexes triggered by)

IT Solvent effect
(on soly. of polymers for ophthalmic pseudolatexes)

IT Tear
(pH of, ophthalmic polymer pseudolatexes triggered by)

IT Polymers, biological studies
RL: BIOL (Biological study)
(pseudolatexes, for ophthalmic suspensions triggered by lacrimal pH)

IT Pharmaceutical dosage forms
(suspensions, ophthalmic, polymer pseudolatexes for, triggered by
lacrimal pH)

IT 9004-32-4, Duodcel 9004-38-0, Cellulose acetate phthalate
9050-31-1, Hydroxypropyl methyl cellulose phthalate 25609-89-6, Crotonic
acid-vinyl acetate copolymer 26589-39-9, Eudragit S 53237-50-6
54578-91-5, Gantrez ES-425
RL: BIOL (Biological study)
(ophthalmic pseudolatex, for dispersions triggered by lacrimal pH)

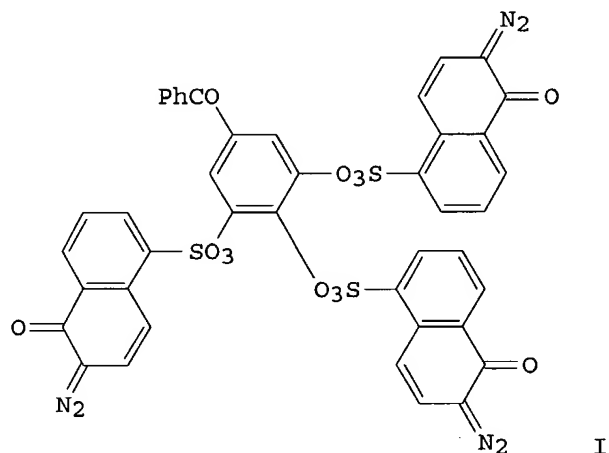
IT 12408-02-5
RL: BIOL (Biological study)
(pH, of tears, ophthalmic polymer pseudolatexes triggered by)

IT 78-93-3, 2-Butanone, properties 108-10-1, Methyl isobutyl ketone
 108-94-1, Cyclohexanone, properties 120-92-3, Cyclopentanone 141-78-6,
 Ethyl acetate, properties 141-79-7, Mesityl oxide
 RL: PRP (Properties)
 (solvent systems contg., cellulose acetate phthalate soly. in,
 ophthalmic pseudolatexes in relation to)

L1 ANSWER 7 OF 9 CA COPYRIGHT 2003 ACS
 AN 96:190670 CA
 TI Photoreprographic sheet
 PA Agfa-Gevaert N. V., Belg.
 SO Jpn. Kokai Tokkyo Koho, 14 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC G03C001-72; G03F001-00
 ICA G03C001-52; G03C001-71
 CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--------------|------|----------|-----------------|----------|
| PI | JP 56132333 | A2 | 19811016 | JP 1981-22144 | 19810216 |
| PRAI | GB 1980-5649 | | 19800220 | | |
| GI | | | | | |



AB A support is coated with a dye- or pigment-contg. subbing layer made of an alk. soln.-sol. non-gelatin binder, and coated with an alk. soln.-development type photosensitive resin compn. to give a photocopying sheet. The binder is selected from CO2H group-contg. resins whose total acid value is 90-350, which are insol. in pure water at 20.degree. but sol. in a 0.5% NaOH soln. at 20.degree.. Thus, a glass bead-coated plastic film was coated with a compn. contg. Et acrylate-methacrylic acid-Me methacrylate copolymer (19.5:30:52.5) 2, carbon black 2, and a BuH2PO4-Bu2HPO4 mixt. (1:1) 0.15 g, and subsequently coated with a compn. contg. Alnovol PN 430 2 and I 1 g to give a photoreprog. sheet.

ST photosensitive resin copying sheet

IT Photoimaging compositions and processes
 (photosensitive resin, subbing layers for)

IT 7585-41-3 9004-38-0 25086-15-1 25133-97-5 29382-68-1

RL: USES (Uses)

(coatings, subbing, for photosensitive resin reprog. sheets)

IT 4986-89-4 5610-94-6 13468-27-4 17292-57-8
 RL: USES (Uses)
 (photosensitive resin compns. contg., for photoreprog. sheets)

IT 9003-35-4
 RL: USES (Uses)
 (photosensitive resin compns. contg., for reprog. sheets)

L1 ANSWER 8 OF 9 CA COPYRIGHT 2003 ACS
 AN 92:32017 CA
 TI Photosensitive resin compositions
 IN Higuchi, Tetsuo; Kokawa, Tomoo
 PA Kansai Paint Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF

DT Patent
 LA Japanese
 IC C08F020-36; C08F002-44; C08F002-50; C08F299-06
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 54014491 | A2 | 19790202 | JP 1977-79710 | 19770704 |
| | JP 62000924 | B4 | 19870110 | | |
| PRAI | JP 1977-79710 | | 19770704 | | |

AB Photopolymer type photosensitive resins for printing plates are composed of: (1) a photopolymerizable unsatd. acrylurethane 20-90; (2) an alk. soln.-sol. polymer having good miscibility with the acrylurethane 10-80, and (3) a sensitizer. The acrylurethane compd. is prepd. by reacting (a) 1 eq. (calcd. on the basis of OH group) of .alpha.,.alpha.-di(hydroxymethyl)propionic acid(I), .alpha.,.alpha.-di(hydroxymethyl)butyric acid(II) or polyester polyol (no. of OH groups 2-10) obtained from I or II with (b) (2/n)-1 (n = no. of OH groups/mol. in a) equiv. of (meth)acrylic ester group-contg. monoisocyanate compd. The photosensitive resin compns. exhibit excellent shelf life and give relief images having good moisture resistance. Thus, I 134(1), 1,6-hexanediol 234(2), and adipic acid 292 g(2 mol) were reacted at 150-200.degree. to give a polyesterpolyol (acid value 93 mgKOH/g). Sep., tolylenediisocyanate 1740 (10), 3,5-di-tert-butyl-4-hydroxytoluene 0.304, and 2-hydroxyethyl methacrylate 1300 g (10 mol) were reacted to give a monoisocyanate compd. The polyesterpolyol and the monoisocyanate compd. were reacted in MeCOEt in the presence of dibutyltin dilaurate to give a carboxyacrylurethane. The carboxyacrylurethane 75, cellulose acetate phthalate 40, and benzoin Et ether 1 g were dissolved in Me2CO and the soln. was coated on an Al support. The plate was imagewise exposed and developed with 0.2% NaOH to give a relief printing plate having excellent mech. property and resolu.

ST photosensitive resin acrylurethane; printing plate photosensitive acrylurethane

IT Thickening agents
 (cellulose derivs. and acrylic polymers, for polyurethane photoresists)

IT Printing plates
 (from polyurethane photoresists)

IT Urethane polymers, uses and miscellaneous
 RL: USES (Uses)
 (photoresists, for printing plates)

IT Urethane polymers, uses and miscellaneous
 RL: USES (Uses)
 (polyester-, photoresists, for printing plates)

IT Printing plates
 (relief, photosensitive resin compns. contg. acrylurethanes for)

IT Printing plates
 (screen, photosensitive resin compns. contg. acrylurethanes for)

IT 61-73-4 90-94-8 105-59-9 119-53-9 119-61-9, uses and miscellaneous
 574-09-4 6320-14-5 9004-38-0 9011-16-9 9032-35-3
 9050-31-1 22499-11-2 24650-42-8 27306-39-4 72013-15-1 72013-16-2

72099-92-4 72099-93-5 72108-83-9 72394-11-7

RL: USES (Uses)

(photosensitive resin compns. contg., for printing plates)

IT 72013-14-0 72013-15-1 72013-16-2 72032-83-8 72032-84-9
72035-31-5

RL: USES (Uses)

(printing plates)

IT 9004-38-0 9032-35-3 9050-31-1 27306-39-4 53200-28-5

RL: USES (Uses)

(thickeners, for polyurethane photoresists, for printing plates)

L1 ANSWER 9 OF 9 CA COPYRIGHT 2003 ACS

AN 84:158042 CA

TI Photosensitive resin composite for relief printing plates

IN Horike, Akihiro; Ohkawa, Kazumi; Shingu, Tadashi

PA Teijin, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC G03F; G03C; B41D

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 50137201 | A2 | 19751031 | JP 1974-42109 | 19740417 |
| PRAI | JP 1974-42109 | | 19740417 | | |

AB A photosensitive assembly consisting of an appropriate support and a composite of a liq. photosensitive resin layer and a solid photosensitive resin layer is useful for prep. high-precision, high-resoln. printing plate relief images. Relief images of uniform thickness are obtained regardless of fluctuations in the thickness of the solid resin layer as long as one side of the solid resin layer is flat and smooth. The prepn. of such solid resin films is considerably easier than prepn. of uniform thickness layers. Thus, cellulose acetate phthalate 66, triethylene glycol diacrylate 34, benzoin ethyl ether 0.7, p-methoxyphenol 0.01, and Sumiburasuto Violet RR 0.05 part were dissolved in acetone and coated (.apprx.70.mu.) on a poly(ethylene terephthalate) support to give a solid photosensitive resin film. Sep. an unsatd. polyester (acid value 150, prepd. by reacting trimellitic anhydride 10, maleic anhydride 50, and diethylene glycol 45 parts at 200.degree., 3 hr)60, acrylamide 10, ethylene glycol dimethacrylate 20, benzoin ethyl ether 1, and N-nitrosodiphenylamine 0.006 part by wt. were mixed to give a liq. photosensitive resin. Th liq. resin was coated over an adhesive layer formed on an antihalation layer on an Fe plate, and the solid resin film was placed on the liq. resin layer to give a total photosensitive resin layer thickness of 700 .mu.. The plate was then imagewise exposed through a negative with a uv fluorescent lamp for 6 min, then the poly(ethylene terephthalate) film was stripped off, and th photosensitive resin layer was developed with aq. 1% Na2CO3 to give a printing plate having a relief image of uniform thickness. High quality clear prints were obtained by using the printing plate.

ST printing plate photopolymer composite

IT Printing plates

(relief, photopolymerizable liq.-solid composite for prepn. of)

IT 79-06-1, uses and miscellaneous 86-30-6 97-90-5 574-09-4 1680-21-3

9004-38-0 58970-14-2

RL: USES (Uses)

(photopolymerizable compn. contg., for relief printing plate prepn.)

=> log y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

33.11

33.32

| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
|--|------------------|---------------|
| CA SUBSCRIBER PRICE | -5.58 | -5.58 |

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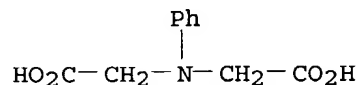
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| NEWS 8 | Sep 16 | Experimental properties added to the REGISTRY file |
| NEWS 9 | Sep 16 | CA Section Thesaurus available in CAPLUS and CA |
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| NEWS 12 | Oct 24 | Nutraceuticals International (NUTRACEUT) now available on STN |
| NEWS 13 | Nov 18 | DKILIT has been renamed APOLLIT |
| NEWS 14 | Nov 25 | More calculated properties added to REGISTRY |
| NEWS 15 | Dec 04 | CSA files on STN |
| NEWS 16 | Dec 17 | PCTFULL now covers WP/PCT Applications from 1978 to date |
| NEWS 17 | Dec 17 | TOXCENTER enhanced with additional content |
| NEWS 18 | Dec 17 | Adis Clinical Trials Insight now available on STN |
| NEWS 19 | Jan 29 | Simultaneous left and right truncation added to COMPENDEX, ENERGY, INSPEC |
| NEWS 20 | Feb 13 | CANCERLIT is no longer being updated |
| NEWS 21 | Feb 24 | METADEx enhancements |
| NEWS 22 | Feb 24 | PCTGEN now available on STN |
| NEWS 23 | Feb 24 | TEMA now available on STN |
| NEWS 24 | Feb 26 | NTIS now allows simultaneous left and right truncation |
| NEWS 25 | Feb 26 | PCTFULL now contains images |
| NEWS 26 | Mar 04 | SDI PACKAGE for monthly delivery of multifile SDI results |
| NEWS 27 | Mar 19 | APOLLIT offering free connect time in April 2003 |
| NEWS 28 | Mar 20 | EVENTLINE will be removed from STN |
| NEWS 29 | Mar 24 | PATDPAFULL now available on STN |
| NEWS 30 | Mar 24 | Additional information for trade-named substances without structures available in REGISTRY |
| NEWS 31 | Apr 11 | Display formats in DGENE enhanced |
| NEWS 32 | Apr 14 | MEDLINE Reload |
| NEWS 33 | Apr 17 | Polymer searching in REGISTRY enhanced |
| NEWS 34 | Apr 21 | Indexing from 1947 to 1956 being added to records in CA/CAPLUS |
| NEWS 35 | Apr 21 | New current-awareness alert (SDI) frequency in WPIDS/WPINDEX/WPIX |
| NEWS 36 | Apr 28 | RDISCLOSURE now available on STN |
| NEWS EXPRESS | April 4 | CURRENT WINDOWS VERSION IS V6.01a, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003 |

Enter NEWS followed by the item number or name to see news on that specific topic.

* * * * * STN Columbus * * * * *

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS
RN 1137-73-1 REGISTRY
CN Glycine, N-(carboxymethyl)-N-phenyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Acetic acid, (phenylimino)di- (6CI, 7CI, 8CI)
OTHER NAMES:

CN (Phenylimino)diacetic acid
 CN Anilinediacetic acid
 CN Anilinodiacetic acid
 CN N-(Carboxymethyl)anilinoacetic acid
 CN N-Phenyliminodiacetic acid
 FS 3D CONCORD
 MF C10 H11 N O4
 CI COM
 LC STN Files: BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS,
 CSCHM, GMELIN*, HODOC*, IFICDB, IFIPAT, IFIUDB, TOXCENTER, USPATFULL
 (*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

77 REFERENCES IN FILE CA (1957 TO DATE)
 16 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 77 REFERENCES IN FILE CAPLUS (1957 TO DATE)
 7 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> file ca

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

14.74

14.95

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FILE COVERS 1907 - 24 Apr 2003 VOL 138 ISS 18

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=> d his

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FILE 'REGISTRY' ENTERED AT 15:18:46 ON 01 MAY 2003

L1 1 S ANILINO DIACETIC ACID

FILE 'CA' ENTERED AT 15:19:33 ON 01 MAY 2003

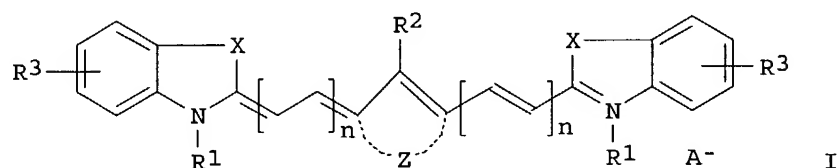
=> s l1 and photo?

77 L1
1143616 PHOTO?
L2 12 L1 AND PHOTO?

=> d all 1-12

L2 ANSWER 1 OF 12 CA COPYRIGHT 2003 ACS
AN 133:230415 CA
TI IR-sensitive composition and manufacture of printing plate using the same
IN Hauck, Gerhard; Savariar-Hauck, Celin; Timpe, Hans-Joachim
PA Kodak Polychrome Graphics G.m.b.H., Germany
SO Ger. Offen., 12 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM G03F007-038
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|----------|------------------|----------|
| PI | DE 19906823 | A1 | 20000914 | DE 1999-19906823 | 19990218 |
| | DE 19906823 | C2 | 20020314 | | |
| PRAI | DE 1999-19906823 | | 19990218 | | |
| OS | MARPAT 133:230415 | | | | |
| GI | | | | | |



AB The invention relates to the IR-sensitive compn. including the initiator system comprised of (a) IR-dye represented by general formula I (X = S, O, NR, C(alkyl)₂; R₁ = alkyl; R₂ = halo, SR, OR, NR₂; R₃ = H, alkyl, OR, SR, NR₂, halo; A⁻ = anion; Z = atoms for forming 5- to 6-membered ring; R = alkyl, aryl, H; n = 0-3), (b) polyhaloalkyl-substituted compd., and (c) polycarboxylic acid. The compn. shows high light stability, printing durability, and developer-resistance.

ST **photopolymn** initiator IR sensitive compn printing plate manuf

IT **Photoimaging materials**
(**photopolymerizable**; IR-sensitive compn. contg. specified **photopolymn.** initiator system for manufg. printing plate)

IT Polymerization catalysts
(**photopolymn.**; IR-sensitive compn. contg. specified **photopolymn.** initiator system for manufg. printing plate)

IT Printing plates
(**photosensitive**; IR-sensitive compn. contg. specified **photopolymn.** initiator system for manufg. printing plate)

IT 1137-73-1, Anilindiacetic acid 3584-23-4, 2-(4-Methoxyphenyl)-4,6-bis(trichloromethyl)-s-triazine 6542-67-2, 2,4,6-Tris(trichloromethyl)-s-triazine 17025-47-7, Tribromomethylphenylsulfone 145094-16-2, 2-Phenyl-4,6-bis(chloromethyl)-s-triazine 205744-92-9 269401-43-6 292047-58-6

RL: CAT (Catalyst use); USES (Uses)
(in **photopolymn.** initiator system in IR-sensitive compn. for manufg. printing plate)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Anon; US 5496903 A CA

- (2) Anon; DE 69222987 T2
 (3) Anon; EP 730201 A1 CA

L2 ANSWER 2 OF 12 CA COPYRIGHT 2003 ACS
 AN 132:341205 CA
 TI **Photopolymerizable** resin composition and material containing the composition for forming image on lithographic plate
 IN Hino, Etsuko; Nagao, Takumi; Urano, Toshiyoshi
 PA Mitsubishi Chemical Industries Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 23 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03F007-028
 ICS C08F002-48; G03F007-004; G03F007-027; H01L021-027
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 35, 38
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2000131839 | A2 | 20000512 | JP 1998-324730 | 19981116 |
| PRAI | JP 1998-232586 | A | 19980819 | | |

OS MARPAT 132:341205
 AB The compn. contains addn.-polymerizable compd. involving .gtoreq.1 ethylenically unsatd. double bond and **photopolymn.** initiator system contg. a titanocene as radical activator and a compd. involving 2 carboxylate or carbonamide groups linked to N in aniline structure through alkylene chains. The material for image formation, preferably a lithog. plate, consists of a support and a layer made of the **photopolymerizable** compn. showing improved solvent soly. and high sensitivity.
 ST **photopolymerizable** resin compn lithog plate; **photopolymn** initiator titanocene radical activator; solvent soly sensitivity **photopolymerizable** imaging material; amino acid diester diamide **photopolymn** initiator
 IT Lithographic plates
 (**photopolymerizable** compn. having initiator system contg. titanocenes and amino acid diester or diamide for lithog. plate)
 IT Polymerization catalysts
 (**photopolymn.**; **photopolymerizable** compn. having initiator system contg. titanocenes and amino acid diester or diamide for lithog. plate)
 IT Carbon black, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (pigment; in **photopolymerizable** compn. having initiator system contg. titanocenes and amino acid diester or diamide for lithog. plate)
 IT 55932-12-2 98269-30-8 113762-37-1 125051-32-3 267876-69-7
 267876-70-0 267876-71-1
 RL: CAT (Catalyst use); USES (Uses)
 (**photopolymerizable** compn. having initiator system contg. titanocenes and amino acid diester or diamide for lithog. plate)
 IT 53733-94-1P
 RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
 (**photopolymerizable** compn. having initiator system contg. titanocenes and amino acid diester or diamide for lithog. plate)
 IT 203742-63-6P, Acrylic acid-styrene copolymer (3,4-epoxycyclohexyl)methyl acrylate ester 220122-98-5P, Isobutyl acrylate-isobutyl methacrylate-methacrylic acid-methyl methacrylate copolymer (3,4-dihydroxycyclohexyl)methyl acrylate ester 267878-65-9P, Acrylic acid-.alpha.-methylstyrene copolymer (3,4-dihydroxycyclohexyl)methyl acrylate ester
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material)

use); PREP (Preparation); USES (Uses)

(**photopolymerizable** compn. having initiator system contg.
titanocenes and amino acid diester or diamide for lithog. plate)

IT 29570-58-9, Dipentaerythritol hexaacrylate 32435-46-4 56361-55-8,
Bisphenol A diethylene glycol diacrylate 77001-81-1

RL: TEM (Technical or engineered material use); USES (Uses)

(**photopolymerizable** compn. having initiator system contg.
titanocenes and amino acid diester or diamide for lithog. plate)

IT 62-53-3, Benzenamine, reactions 96-33-3, Methyl acrylate 105-36-2,
Ethyl bromoacetate 1137-73-1

RL: RCT (Reactant); RACT (Reactant or reagent)

(**photopolymerizable** compn. having initiator system contg.
titanocenes and amino acid diester or diamide from)

L2 ANSWER 3 OF 12 CA COPYRIGHT 2003 ACS

AN 131:52065 CA

TI Heat development recording material useful for printing platemaking

IN Yamada, Kozaburo; Suzuki, Hiroyuki; Ezoe, Toshihide

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 32 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03C001-498

CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|------------------|------|----------|-----------------|----------|
| | ----- | | ----- | ----- | ----- |
| PI | JP 11149136 | A2 | 19990602 | JP 1997-332388 | 19971117 |
| | US 6177240 | B1 | 20010123 | US 1998-193241 | 19981117 |
| PRAI | JP 1997-332388 | A | 19971117 | | |
| OS | MARPAT 131:52065 | | | | |

AB The title material, possessing .gtoreq.1 image-forming layer, contains an
org. Ag salt, a reducing agent, and a compd. [ZCR1R2(CO)nCO2]mM (Z =
arom., heterocyclic group, amino; M = H, Ag, alkali metal, alk. earth
metal; m = 1 or 2; n = 0 or 1; R1, R2 = H or substituent, R1 and R2 may
link to Z to form a ring structure). The material shows high Dmax,
sensitivity, and contrast and the **photog.** properties are
independent of the variation of development conditions.

ST heat developable **photosensitive** material; **photothermog**
material carboxylic acid nucleating agent

IT **Photothermographic** copying

(**photothermog.** copying material contg. org. silver salt,
reducing agent, and carboxylic acid compd. as nucleating agent)

IT 114-76-1 1137-73-1 1989-33-9, 9H-Fluorene-9-carboxylic acid
207454-15-7 227186-71-2 227186-72-3 227186-73-4 227186-74-5
227186-75-6 227186-76-7 227187-56-6 227187-57-7 227187-58-8
227187-59-9

RL: DEV (Device component use); USES (Uses)

(**photothermog.** copying material contg. org. silver salt,
reducing agent, and carboxylic acid compd. as nucleating agent)

IT 705-61-3P 10502-44-0P 21607-78-3P 158502-03-5P 207454-26-0P
227186-69-8P 227186-70-1P

RL: DEV (Device component use); PNU (Preparation, unclassified); PREP
(Preparation); USES (Uses)

(**photothermog.** copying material contg. org. silver salt,
reducing agent, and carboxylic acid compd. as nucleating agent)

IT 66791-63-7P 151453-12-2P 151453-14-4P

RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation);
RACT (Reactant or reagent)

(prepn. of carboxylic acid compd. nucleating agent)

IT 91-66-7, N,N-Diethylaniline 122-39-4, Diphenylamine, reactions
603-34-9, N,N-Diphenylaniline 4755-77-5, Ethyl chloroglyoxylate
5279-59-4, 4-tert-Butyl-N-methylaniline

RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. of carboxylic acid compd. nucleating agent)

IT 62-53-3, Benzenamine, reactions 5445-17-0, Methyl 2-bromopropionate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. of phenylalanine Me ester)

L2 ANSWER 4 OF 12 CA COPYRIGHT 2003 ACS
 AN 129:321109 CA
 TI **Photoactivated** dentin bonding with N-phenyliminodiacetic acid
 AU Code, James E.; Antonucci, Joseph M.; Bennett, Patricia S.; Schumacher, Gary E.
 CS Clinical Center, National Institutes of Health, Gaithersburg, MD, USA
 SO Dental Materials (1997), 13(4), 252-257
 CODEN: DEMAEP; ISSN: 0109-5641
 PB Academy of Dental Materials
 DT Journal
 LA English
 CC 63-7 (Pharmaceuticals)
 AB The overall objective of this study was to correlate adhesive resin and polymn. initiator chem. with bonding to dentin that had been treated with N-phenyliminodiacetic acid (PIDAA), a self-etching primer with initiator and co-initiator potential. The hypotheses to be tested were that: (1) the nature of the adhesive resin and (2) the type of polymn. initiator system are crit. factors that can influence the bonding of composite restoratives to dentin. Three types of bonding resins: (A) a non-carboxylic acid bonding resin (BisGMA/HEMA); (B) a carboxylic acid monomer (PMDM, the control); and (C) a combination system (BisGMA/HEMA/PMDM), along with two types of initiator systems: (1) a self-curing chem. initiator system based on PIDAA and (2) a dual-cure system involving camphorquinone, PIDAA, and visible light irradiation, were tested with a randomized 3 times, 2 full factorial design. Mean shear bond strengths and std. deviations were obtained (with and without camphorquinone, resp.): (A), 11.0 MPa \pm 3.9 and 4.1 MPa \pm 4.9; (B), 27.0 MPa \pm 5.3 and 13.7 MPa \pm 5.6; (C), 18.3 MPa \pm 5.3 and 7.0 MPa \pm 5.2. The use of camphorquinone significantly enhanced the mean shear bond strengths obtained with the carboxylic, non-carboxylic and combination monomer based adhesive systems ($p < 0.0001$). For PIDAA-treated dentin, moderate shear bond strengths were obtained with a non-carboxylic acid resin soln. contg. camphorquinone. The addn. of both PMDM and camphorquinone to this resin further improved the shear bond strengths. The highest mean shear bond strength was obtained with the combination of PMDM and camphorquinone ($p < 0.05$). These results suggest that formulations based on PIDAA, PMDM and camphorquinone are more effective as bonding systems than those formulations without PMDM and camphorquinone. PIDAA, a self-etching primer with initiator and co-initiator abilities, appears to interact pos. with both carboxylic acid monomers such as PMDM and the **photooxidant** camphorquinone.

ST **photoactivated** dentin bonding phenyliminodiacetic acid
 IT Dental materials and appliances
 (adhesives, dentin; **photoactivated** dentin bonding with N-phenyliminodiacetic acid)

IT Dental materials and appliances
 (composites; **photoactivated** dentin bonding with N-phenyliminodiacetic acid)

IT Polymerization
 (photopolymn.; **photoactivated** dentin bonding with N-phenyliminodiacetic acid)

IT 10373-78-1, Camphorquinone
 RL: CAT (Catalyst use); PRP (Properties); THU (Therapeutic use); BIOL (biological study); USES (Uses)
 (**photoactivated** dentin bonding with N-phenyliminodiacetic acid)

IT 868-77-9, 2-Hydroxyethyl methacrylate 1137-73-1, N-Phenyliminodiacetic acid 1565-94-2, Bis-GMA 83418-60-4, Pmdm
 RL: PRP (Properties); RCT (Reactant); THU (Therapeutic use); BIOL

(Biological study); RACT (Reactant or reagent); USES (Uses)
(**photoactivated** dentin bonding with N-phenyliminodiacetic
acid)

RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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- (2) Antonucci, J; US 5498643 1996 CA
- (3) Antonucci, J; J Dent Res, Abstr No 1071 1992, V71, P239
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- (28) Venz, S; J Dent Res, Abstr No 901 1988, V67, P225
- (29) Wall, F; Statistical Data Analysis Handbook 1986, P4.10

L2 ANSWER 5 OF 12 CA COPYRIGHT 2003 ACS

AN 129:296182 CA

TI Material for lithographic plate preparation having
photopolymerizable imaging layer overcoated with oxygen barrier
layer

IN West, Paul Richard; Gurney, Jeffery Allen

PA Kodak Polychrome Graphics, USA

SO U.S., 17 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM G03F007-11

NCL 430276100

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | US 5821030 | A | 19981013 | US 1996-615916 | 19960314 |
| | US 5888700 | A | 19990330 | US 1998-5859 | 19980112 |
| PRAI | US 1996-615916 | | 19960314 | | |

OS MARPAT 129:296182

AB A material for lithog. plate prepn. adapted to be imagewise-exposed with a
UV- or visible-light-emitting laser such as an argon-ion or
frequency-doubled Nd:YAG laser, comprises a radiation-sensitive layer and
an oxygen barrier layer. The radiation-sensitive layer includes one or
more addn.-polymerizable ethylenically-unsatd. compds. and a
photopolymn. initiator system comprised of a spectral sensitizer
that sensitizes in the UV or visible regions of the spectrum and an

N-aryl, O-aryl or S-aryl polycarboxylic acid coinitiator. The oxygen barrier layer comprises fully hydrolyzed polyvinyl alc. and a basic compd. is incorporated in the oxygen barrier layer or the radiation-sensitive layer or both in an amt. sufficient to control thermal fog susceptibility of the material. Such a material is able to effectively meet the requirements of very high **photospeed**, freedom from thermal fog, and very good shelf life.

ST **photopolymerizable** material lithog plate oxygen barrier

IT Lithographic plates

(**photopolymerizable** materials with oxygen barrier layers for prepn. of)

IT **Photoimaging** materials

(**photopolymerizable**; with oxygen barrier layers for prepn. of lithog. plates)

IT Polyvinyl acetals

RL: TEM (Technical or engineered material use); USES (Uses)

(with oxygen barrier layers for prepn. of lithog. plates)

IT 115-77-5, Pentaerythritol, uses 147-14-8, Copper phthalocyanine

1137-73-1, Anilinediacetic acid 28961-43-5, Sartomer 9008

32435-46-4, Kayamer PM-2 37610-75-6 58109-40-3, Diphenyliodonium

hexafluorophosphate 63226-13-1, 3,3'-Carbonylbis(7-diethylaminocoumarin)

125051-32-3, CGI-784

RL: TEM (Technical or engineered material use); USES (Uses)

(**photopolymerizable** compns. for lithog. plate prepn. contg.)

IT 75-59-2, Tetramethylammonium hydroxide 77-98-5, Tetraethylammonium

hydroxide 127-09-3, Sodium acetate 137-40-6, Sodium propionate

141-95-7, Disodium malonate 142-72-3, Magnesium acetate 150-90-3,

Disodium succinate 327-62-8, Potassium propionate 515-74-2, Sodium

sulfanilate 526-94-3, Monosodium tartrate, uses 540-72-7, Sodium

thiocyanate 553-54-8, Lithium benzoate 919-16-4, Lithium citrate

996-30-5, Sodium isobutyrate 1305-62-0, Calcium hydroxide, uses

1309-42-8, Magnesium hydroxide 1310-58-3, Potassium hydroxide, uses

1310-65-2, Lithium hydroxide 1310-73-2, Sodium hydroxide, uses

1336-21-6, Ammonium hydroxide 2053-21-6, Sodium gallate 2922-55-6,

Monosodium malonate 3012-65-5, Dibasic ammonium citrate 6531-45-9,

Lithium propionate 7487-88-9, Magnesium sulfate, uses 7558-79-4,

Dibasic sodium phosphate 7558-80-7, Monobasic sodium phosphate

7601-54-9, Tribasic sodium phosphate 7631-99-4, Sodium nitrate, uses

7758-09-0, Potassium nitrite 7778-49-6, Potassium citrate 7778-77-0,

Monobasic potassium phosphate 9002-89-5, Mowiol 4-98 14047-56-4

16987-03-4, Sodium 3-chloropropionate 17013-01-3, Disodium fumarate

18996-35-5, Monosodium citrate 23311-84-4, Sodium adipate 24634-61-5,

Potassium sorbate 32224-61-6, Sodium glutarate 50597-61-0, Sodium

3,4,5-trimethoxybenzoate 109334-81-8, Methyltriethylammonium hydroxide

RL: TEM (Technical or engineered material use); USES (Uses)

(presensitized lithog. plates with **photopolymerizable** compns. and oxygen barrier layers contg.)

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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(2) Ali; US 4988607 1991 CA

(3) Anon; EP 0290133 1988 CA

(4) Anon; JP 1660964 1991

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(7) Anon; JP 743905 1995

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(9) Kaji; US 5153236 1992 CA

(10) Kawabata; US 4868092 1989 CA

(11) Kawabata; US 4939069 1990 CA

(12) Kawabata; US 4965171 1990 CA

(13) Klupfel; US 3753715 1973 CA

(14) Kurtz; US 4946758 1990 CA

(15) Lynch; US 4469775 1984 CA

(16) Marino; Proceedings of the Radtech '94 Conference 1994, V1, P169 CA

(17) Markiewitz; US 4095019 1978 CA
 (18) Mibuka; JP 743905 1995
 (19) Mibuka; JP 743905 1995
 (20) Mibuta; JP 95102691
 (21) Mibuta; JP 95119556
 (22) Mibuta; JP 728251 1995
 (23) Mibuta; JP 728251 1995
 (24) Mibuta; JP 728251 1995
 (25) Mibuta; JP 743905 1995
 (26) Specht; US 4278751 1981 CA
 (27) Wade; US 4942111 1990 CA
 (28) Wilhelm; US 3615629 1971
 (29) Yamaoka; Journal of Applied Polymer Science 1989, V38, P1271 CA
 (30) Zertani; US 5273862 1993 CA

L2 ANSWER 6 OF 12 CA COPYRIGHT 2003 ACS

AN 129:60589 CA

TI **Photosensitive** element having integral thermally bleachable mask
 and method of use

IN West, Paul Richard; Gurney, Jeffery Allen

PA Eastman Kodak Co., USA

SO U.S., 6 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM G03F007-095

ICS G03F007-30; G03F007-34; G03F007-38

NCL 430278100

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | US 5759742 | A | 19980602 | US 1996-719607 | 19960925 |
| PRAI | US 1996-719607 | | 19960925 | | |
| AB | A masking element is prepd. with a photosensitive layer on a suitable support, overcoated with a masking layer contg. an IR-absorbing compd. and a thermally bleachable dye. The dye is bleached by imagewise laser irradiation, followed by floodwise exposure to produce an image in the photosensitive layer corresponding to the laser produced image. The outermost layers are removed and development provides a suitable neg.-working printing plate. | | | | |
| ST | photoimaging material bleachable mask lithog plate | | | | |
| IT | Polyethers, uses | | | | |
| | RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses) | | | | |
| | (di-Me siloxane-, Byk 307; photoimaging elements having integral thermally bleachable masks for lithog. plate manuf. contg.) | | | | |
| IT | Polysiloxanes, uses | | | | |
| | RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses) | | | | |
| | (di-Me, polyether-, Byk 307; photoimaging elements having integral thermally bleachable masks for lithog. plate manuf. contg.) | | | | |
| IT | Photoimaging materials | | | | |
| | (having integral thermally bleachable masks for manuf. of lithog. plates) | | | | |
| IT | Lithographic plates | | | | |
| | (photosensitive elements having integral thermally bleachable masks for manuf. of) | | | | |
| IT | Polyvinyl acetals | | | | |
| | RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses) | | | | |
| | (ternary; photoimaging elements having integral thermally bleachable masks for lithog. plate manuf. contg.) | | | | |

IT 28961-43-5, SR 9008
 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (SR 9008; **photoimaging** elements having integral thermally bleachable masks for lithog. plate manuf. contg.)

IT 147-14-8, Copper phthalocyanine 577-11-7, Aerosol OT 1137-73-1, Anilinediacetic acid 1497-49-0, Glutaconaldehyde dianil chloride 3524-68-3, Pentaerythritol triacrylate 9002-89-5, Mowiol 4-98 9004-64-2, Hydroxypropylcellulose 32435-46-4, Kayamer PM-2 57534-41-5, Zonyl FSN 63226-13-1, 3,3'-Carbonylbis(7-diethylaminocoumarin) 134127-48-3
 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (**photoimaging** elements having integral thermally bleachable masks for lithog. plate manuf. contg.)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE
 (1) Barzynski; US 4515877 1985
 (2) Barzynski; US 4555471 1985 CA
 (3) Blumel; US 4777111 1988 CA
 (4) Drexler; US 4225659 1980 CA
 (5) Fan; US 5262275 1993 CA
 (6) Fromson; US 4731317 1988 CA
 (7) Simpson; US 5399459 1995 CA

L2 ANSWER 7 OF 12 CA COPYRIGHT 2003 ACS
 AN 129:10571 CA
 TI Silver halide **photographic** emulsion layer having enhanced sensitivity
 IN Farid, Samir Y.; Lenhard, Jerome R.; Chen, Chin H.; Muentner, Annabel A.; Gould, Ian R.; Godleski, Stephen A.; Zielinski, Paul A.; Weidner, Charles H.
 PA Eastman Kodak Co., USA
 SO U.S., 47 pp., Cont.-in-part of U.S. Ser. No. 592,106, abandoned.
 CODEN: USXXAM
 DT Patent
 LA English
 IC ICM G03C001-08
 NCL 430583000
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | US 5747236 | A | 19980505 | US 1996-740536 | 19961030 |
| | EP 786691 | A1 | 19970730 | EP 1997-200126 | 19970116 |
| | R: DE, FR, GB | | | | |
| | CN 1168986 | A | 19971231 | CN 1997-102975 | 19970125 |
| | CN 1088853 | B | 20020807 | | |
| | JP 09211774 | A2 | 19970815 | JP 1997-12986 | 19970127 |
| PRAI | US 1996-592106 | B2 | 19960126 | | |
| | US 1996-740536 | A | 19961030 | | |
| OS | MARPAT 129:10571 | | | | |
| AB | A photog. element comprises a support and at least one silver halide emulsion layer in which the silver halide is sensitized with a fragmentable electron donor of the formula XY, wherein X is an electron donor moiety and Y is a leaving group other than hydrogen, and wherein XY has an oxidn. potential between 0 and about 1.4 V and the oxidized form of XY undergoes a bond cleavage reaction to give the radical X. and the leaving fragment Y. In a preferred embodiment of the invention, the radical X. has an oxidn. potential .ltoreq.-0.7V. | | | | |
| ST | photog emulsion fragmentable electron donor sensitizer | | | | |
| IT | Photographic emulsions (contg. fragmentable electron donor compds. for improved photosensitivity) | | | | |

IT **Photographic sensitizers**
(fragmentable electron donor compds. as)

IT 90-64-2 705-61-3 1137-73-1 10502-44-0 13443-54-4
17078-28-3 54229-53-7 103678-25-7 207452-94-6 207454-13-5
207454-26-0 207454-27-1 207454-28-2 207454-29-3 207454-30-6
207454-31-7 207454-32-8 207454-33-9 207454-34-0 207454-35-1
207454-36-2 207454-37-3 207454-38-4
RL: TEM (Technical or engineered material use); USES (Uses)
(fragmentable electron donor sensitizer for silver halide
photog. materials)

IT 16955-01-4P 16955-04-7P 21911-68-2P 50845-77-7P 54860-84-3P
58665-00-2P 72228-40-1P 132631-08-4P 151453-14-4P 151453-19-9P
155171-53-2P 183374-82-5P 207454-05-5P 207454-06-6P 207454-07-7P
207454-08-8P 207454-09-9P 207454-10-2P 207454-11-3P 207454-12-4P
RL: RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or
engineered material use); PREP (Preparation); RACT (Reactant or reagent);
USES (Uses)
(prepn. and reaction in prepg. fragmentable electron donor sensitizers
for silver halide **photog.** materials)

IT 207454-04-4P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(prepn. and reaction in prepg. fragmentable electron donor sensitizers
for silver halide **photog.** materials)

IT 28444-51-1P 30042-67-2P 72228-39-8P 91957-24-3P 92964-75-5P
207454-14-6P 207454-15-7P 207454-16-8P 207454-17-9P 207454-18-0P
207454-19-1P 207454-20-4P 207454-21-5P 207454-22-6P 207454-23-7P
207454-24-8P 207454-25-9P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(prepn. and use as fragmentable electron donor sensitizer for silver
halide **photog.** materials)

IT 94-09-7P, Ethyl 4-aminobenzoate
RL: RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or
engineered material use); PREP (Preparation); RACT (Reactant or reagent);
USES (Uses)
(reaction in prepg. fragmentable electron donor sensitizers for silver
halide **photog.** materials)

IT 62-53-3, Benzenamine, reactions 92-84-2, 10H-Phenothiazine 104-94-9,
p-Anisidine 105-36-2, Ethyl bromoacetate 106-49-0, p-Toluidine,
reactions 120-12-7, Anthracene, reactions 120-75-2,
2-Methylbenzothiazole 122-39-4, Diphenylamine, reactions 350-96-9
535-11-5, Ethyl 2-bromopropionate 586-77-6, p-Bromo-N,N-dimethylaniline
1912-48-7, 1-Methyl-3-indoleacetic acid 3119-93-5, N-Ethyl-2-
methylbenzothiazolium iodide 64035-64-9, Trimethylsilylmethyl triflate
64501-34-4
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT
(Reactant or reagent); USES (Uses)
(reaction in prepg. fragmentable electron donor sensitizers for silver
halide **photog.** materials)

RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Ahrenkiel, R; "The Theory of the Photographic Process", 4th Edition 1977, P265
- (2) Anon; GB 1064193 1967
- (3) Anon; GB 1255084 1971
- (4) Anon; EP 0554856 A1 1993 CA
- (5) Anon; DE 4343622 A1 1994 CA
- (6) Anon; EP 0652470 A1 1995 CA
- (7) Asami; US 5244779 1993 CA
- (8) Beltramini; US 5212056 1993 CA
- (9) Brooks; US 3458318 1969
- (10) Carroll; US 2875058 1959 CA
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(12) Herz; US 4367279 1983 CA
 (13) Hiller; US 3695888 1972 CA
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 (17) Hirano; US 4719174 1988 CA
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 (26) Okada; US 4971890 1990 CA
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 (28) Riester; US 3457078 1969
 (29) Roberts, J; Basic Principles of Organic Chemistry 1965
 (30) Sato; US 5059516 1991 CA
 (31) Shiba; US 3615632 1971
 (32) Toya; US 5190855 1993 CA
 (33) Trivelli; US 2419975 1947 CA
 (34) Ulbing; US 3809561 1974 CA

L2 ANSWER 8 OF 12 CA COPYRIGHT 2003 ACS
 AN 127:301283 CA
 TI Peel-developable lithographic printing plate
 IN West, Paul Richard; Gurney, Jeffery Allen
 PA Eastman Kodak Company, USA
 SO Eur. Pat. Appl., 25 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 IC ICM G03F007-34
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | EP 795790 | A2 | 19970917 | EP 1997-200570 | 19970227 |
| | EP 795790 | A3 | 19980819 | | |
| | EP 795790 | B1 | 20020925 | | |
| | R: DE, FR, GB | | | | |
| | US 5776655 | A | 19980707 | US 1996-613931 | 19960311 |
| | JP 10003166 | A2 | 19980106 | JP 1997-55252 | 19970310 |
| PRAI | US 1996-613931 | A | 19960311 | | |

AB A peel-developable lithog. printing plate is comprised of a substrate, a hydrophilic layer comprising a polymeric acid overlying the substrate, a radiation-sensitive image-forming layer overlying the hydrophilic layer and a stripping layer that is strippably adhered to the image-forming layer. The image-forming layer is comprises of a **photopolymerizable** compn. comprising a polymeric binder, a plurality of addn.-polymerizable ethylenically-unsatd. compds. at least one of which possesses phosphorus-derived acidic functionality and a **photopolymn.** initiator. After imagewise exposure of the plate to activating radiation, the stripping layer is peeled from the image-forming layer with only the unexposed regions of the image-forming layer adhering thereto so as to reveal the underlying hydrophilic layer and thereby form a lithog. printing surface.

ST peel developable lithog plate **photopolymerizable** compn
 IT Polyethers, uses

RL: TEM (Technical or engineered material use); USES (Uses)
 (di-Me siloxane-, BYK 307; lithog. plate prepn. using peel-developable **photosensitive** compns. contg.)

IT Polysiloxanes, uses

Polysiloxanes, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(di-Me, polyether-, BYK 307; lithog. plate prepn. using
peel-developable **photosensitive** compns. contg.)

IT Lithographic plates
(peel-developable **photosensitive** compns. contg. ethylenically
unsatd. compds. with phosphorus-derived acidic functionality for manuf.
of)

IT **Photoimaging** materials
(**photopolymerizable**; contg. ethylenically unsatd. compds.
with phosphorus-derived acidic functionality for lithog. plate prepn.)

IT 28961-43-5, SR 9008

RL: TEM (Technical or engineered material use); USES (Uses)
(SR 9008; lithog. plate prepn. using peel-developable
photosensitive compns. contg.)

IT 96-66-2 147-14-8, Copper phthalocyanine 1137-73-1,
Anilinediacetic acid 3524-68-3, Pentaerythritol triacrylate
32435-46-4, Bis(2-methacryloyloxyethyl) hydrogen phosphate 58109-40-3,
Diphenyliodonium hexafluorophosphate 63123-42-2 63226-13-1,
3,3'-Carbonylbis(7-diethylaminocoumarin) 125051-32-3, CGI-784
RL: TEM (Technical or engineered material use); USES (Uses)
(lithog. plate prepn. using peel-developable **photosensitive**
compns. contg.)

L2 ANSWER 9 OF 12 CA COPYRIGHT 2003 ACS

AN 125:288838 CA

TI Sensitized **photopolymerizable** compositions for manufacture of
lithographic plates

IN West, Paul Richard; Gurney, Jeffery Allen

PA Eastman Kodak Company, USA

SO Eur. Pat. Appl., 29 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM G03F007-031

ICS C08F002-50

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------------------|------|----------|-----------------|----------|
| PI | EP 730201 | A1 | 19960904 | EP 1996-200485 | 19960226 |
| | EP 730201 | B1 | 20010509 | | |
| | R: BE, DE, FR, GB, IT, NL | | | | |
| | US 5629354 | A | 19970513 | US 1995-395352 | 19950228 |
| | JP 08254821 | A2 | 19961001 | JP 1996-41630 | 19960228 |
| | US 5942372 | A | 19990824 | US 1996-752342 | 19961119 |
| | US 5914215 | A | 19990622 | US 1997-911288 | 19970814 |
| PRAI | US 1995-395352 | A | 19950228 | | |
| | US 1996-752342 | A3 | 19961119 | | |

OS MARPAT 125:288838

AB Improved **photopolymn.** initiator systems are comprised of a
spectral sensitizer that sensitizes in the UV or visible regions of the
spectrum and an N-aryl, O-aryl, or S-aryl polycarboxylic acid coinitiator.
The improved initiator systems are incorporated in
photopolymerizable compns. contg. one or more addn.-polymerizable
ethylenically unsatd. compds. to form compns. suitable for the prepn. of
radiation-sensitive layers in manuf. of lithog. plates adapted to be
imagewise exposed with UV- or visible-light-emitting lasers such as
argon-ion lasers and frequency doubled Nd:YAG lasers. Such plates are
able to effectively meet the dual requirements of very high
photospeed and very good shelf life required in computer-to-plate
systems.

ST sensitized **photopolymerizable** compn manuf lithog plate

IT Lithographic plates

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FILE COVERS 1907 - 24 Apr 2003 VOL 138 ISS 18
FILE LAST UPDATED: 24 Apr 2003 (20030424/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 9004-38-0/rn and acid adj (number or value)
MISSING OPERATOR 'ADJ (NUMBER'
The search profile that was entered contains terms or nested terms that are not separated by a logical operator.

=> s 9004-38-0/rn and acid (w) (number or value)
1470 9004-38-0
10 9004-38-0D
1461 9004-38-0/RN
(9004-38-0 (NOTL) 9004-38-0D)
3576996 ACID
87045 NUMBER
733961 VALUE
11912 ACID (W) (NUMBER OR VALUE)
L1 9 9004-38-0/RN AND ACID (W) (NUMBER OR VALUE)

=> d all 1-9

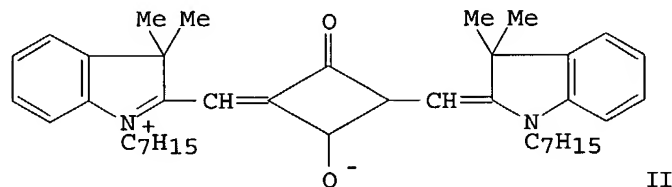
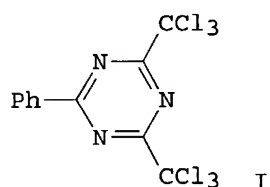
L1 ANSWER 1 OF 9 CA COPYRIGHT 2003 ACS
AN 137:286436 CA
TI Light-sensitive resin composition for dry resist film developable with visible light and resistant towards sand blasting and method for cutting patterned material applied with the same according to sand blasting
IN Ueda, Shoji
PA Mitsubishi Rayon Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-029
ICS C08F002-44; C08F002-50; C08F283-00; C08F290-00; C08F299-06; C08K005-00; C08K005-55; C08L075-14; C08L101-00; G03F007-004; G03F007-027; G03F007-031; G03F007-032; G03F007-40
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE

PI JP 2002287349 A2 20021003 JP 2001-87807 20010326
PRAI JP 2001-87807 20010326
OS MARPAT 137:286436
AB The title compn. contains a photopolymerizable urethane (meth)acrylate having .gtoreq.2 (meth)acryloyl groups, an alkali solubilizable resin of 50-250 mg/KOH acid value, a borate compd., and a sensitizer dye, wherein the borate compd. has structure(R1) (R2) (R3) (R4) B-.cntdot.Z (R1-4 = alkyl, alkenyl, aryl, etc.; Z = quaternary ammonium, quaternary pyridinium, quaternary quinolinium). The compn. provides photoresist is directly patterned with a laser beam and shows the good resistance towards sand blasting to cut a patterned mother substrate with sand blasting.
ST light sensitive resin compn dry resist film sand blasting
IT Light-sensitive materials
Photoresists

PA Fuji Photo Film Co., Ltd., Japan
 SO Ger. Offen., 35 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC ICM G03F007-004
 ICS C08F002-50
 ICA C09B023-00; C09B015-00; C09B057-02
 CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|----------|-----------------|----------|
| PI | DE 3926666 | A1 | 19900215 | DE 1989-3926666 | 19890811 |
| | DE 3926666 | C2 | 19980604 | | |
| | JP 02048665 | A2 | 19900219 | JP 1988-200606 | 19880811 |
| | JP 08020734 | B4 | 19960304 | | |
| | US 4997745 | A | 19910305 | US 1989-394383 | 19890811 |
| PRAI | JP 1988-200606 | | 19880811 | | |
| OS | MARPAT 113:123869 | | | | |
| GI | | | | | |



AB Light-sensitive compns. contg. a trihalomethyl-s-triazine and a dye **photosensitizer** having a redn. potential that is not more than 0.10 V higher than the redn. potential of the trihalomethyl-s-triazine are used in **photopolymerizable photoimaging** compns. for the prodn. of lithog. plates, printing plates, resist patterns, **photomasks**, or the like. The compns. are sensitive in the visible and near-IR regions and are stable. Thus, a PET support was overcoated with a compn. contg. pentaerythritol tetraacrylate, a benzyl acrylate-methacrylic acid copolymer, I, II (**photosensitizer**), CH₂Cl₂, and MeCOEt, dried, imagewise exposed through a step tablet, and developed to show 6 steps.

ST light sensitive compn **photopolymer photoimaging**; trihalomethyltriazine light sensitive compn **photoimaging**; dye light sensitive compn **photoimaging**; cyanine dye light sensitive **photoimaging**; triazine trihalomethyl light sensitive **photoimaging**

IT **Lithographic plates**
Photomasks
 Printing plates
 (photopolymerizable compns. for fabrication of, photoinitiator compns. for)

IT **Resists**
 (photo-, photoinitiator compns. contg. cyanine dye and trihalomethyltriazine compd. for)

IT **Photoimaging compositions and processes**
 (photopolymerizable, photoinitiator compns. contg. cyanine dye and trihalomethyltriazine compd. for)

IT 24504-22-1 125775-49-7 129300-92-1
 RL: USES (Uses)
 (photoinitiator compns. contg. dye sensitizer and, for photopolymer photoimaging compns.)

IT 905-96-4 985-10-4 14806-50-9 41387-42-2 61877-50-7 129281-02-3

RL: USES (Uses)

(**photoinitiator** compns. contg. trihalomethyltriazine and, for
photopolymer photoimaging compns.)

L48 ANSWER 70 OF 78 CA COPYRIGHT 2003 ACS

AN 111:244054 CA

TI Fourier transform **infrared** (FTIR) kinetics diagnostics of thin
film polymerization **photoinitiated** by excimer laser pulses

AU Klick, David; Akerman, M. Alfred; Paul, George L.; Supurovic, Darko;
Tsuda, Haruki

CS Lincoln Lab., Massachusetts Inst. Technol., Lexington, MA, 02173-0073, USA

SO Proceedings of SPIE-The International Society for Optical Engineering
(1989), 1056 (Photochem. Thin Films), 56-63

CODEN: PSISDG; ISSN: 0277-786X

DT Journal

LA English

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

Section cross-reference(s): 36

AB Rapid-scan non-repetitive FTIR was used for the 1st time to monitor the
kinetics of polymn., specifically excimer-laser-induced curing of thin
films. IR scans with 4 cm⁻¹ spectral resoln. were recorded at a
12.5 Hz rate. These spectra are of high-quality (noise-free,
reproducible), so that during in situ curing, unchanging features of the
spectra overlay from scan to scan. This allows one to confidently assume
that the absorbance at the peak of interest reflects the extent of polymn.
It was found in the FTIR expts. that a significant fraction of the
reactions occur within 100 ms of the light input, with another significant
fraction occurring on a time scale of seconds afterwards. More
information could thus be obtained from improved FTIR instruments with
scan periods <80 ms and memories capable of holding >25 scans. The app.
which was used combining high-power UV light from an excimer laser (to
provide initiation for polymn.) with reaction monitoring via rapid-scan
FTIR, is likely to be useful in other studies.

ST IR diagnostic **photopolymn** kinetics lithog

IT Lithography

(Fourier-transform IR kinetic diagnostic of thin film polymn.
photoinitiated by excimer laser pulses in relation to)

IT Kinetics of polymerization

(**photoinitiated** by excimer laser pulses, of thin films,
Fourier-transform IR diagnostic of)

IT Infrared spectrometry

(Fourier-transform, in kinetic diagnostic of thin film polymn.
photoinitiated by excimer laser pulses, for microlithog.
publications)

IT Coating materials

(UV-curable, Fourier-transform IR kinetic diagnostic in
relation to)

IT Resists

(**photo-**, Fourier-transform IR kinetic diagnostics
of thin film polymn. **photoinitiated** by excimer laser pulses
in relation to)

IT 105-59-9, N-Methyldiethanolamine 2128-93-0, Trigonal 12 13048-33-4

13463-67-7, Titanium dioxide, uses and miscellaneous 15625-89-5

24650-42-8, Irgacure 651 82799-44-8, 2,4-Diethylthioxanthone

RL: USES (Uses)

(**photopolymn.** of thin film compn. contg., initiated by
excimer laser pulses, Fourier-transform IR kinetic diagnostic
of)

L48 ANSWER 71 OF 78 CA COPYRIGHT 2003 ACS

AN 110:145036 CA

TI Printing plate materials having **photopolymerization** initiator
composition containing polymethine-type dyes and
photopolymerizable composition

IN Fukui, Tetsuro; Arahara, Kozo; Fukumoto, Hiroshi; Oguchi, Yoshihiro
 PA Canon K. K., Japan
 SO Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03C001-68
 ICS C08F002-50
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|----------|-----------------|----------|
| PI | JP 63208036 | A2 | 19880829 | JP 1987-40413 | 19870225 |
| PRAI | JP 1987-40413 | | 19870225 | | |
| OS | MARPAT 110:145036 | | | | |

AB Printing plate materials contain a **photopolymn.** initiator compn. contg. polymethine-type dyes of the formula $RR_1C+(CH:CR_2)_m(CH:CH)_nCH:CR_3R_4$. X- [I; R, R₁-4 = H, (substituted) alkyl, cycloalkyl, alkenyl, (substituted) aralkyl, (substituted) aryl, (substituted) styryl, (substituted) heterocyclyl; X- = anion; m = 0, 1; n = 0, 1, 2] and a **photopolymg. photosensitive** component as the main constituents. The materials are capable of making printing plates by using a compact and simple plate making app. using IR or semiconductor laser beams. Thus, a polyimide film was coated with a compn. contg. trimethylolpropane triacrylate, poly(Me methacrylate), I (R, R₁-R₄ = Et₂NC₆H₄-p; X- = ClO₄-; m = 0; n = 1), and benzoyl peroxide and then coated with poly(vinyl alc.) to give a **photosensitive** plate showing high sensitivity toward a semiconductor laser beam (830 nm).

ST printing plate material **photopolymn** initiator; polymethine dye printing plate material

IT **Lithographic plates**

(**photopolymn.** initiators contg. polymethine dyes for)

IT 15625-89-5 73214-79-6

RL: USES (Uses)

(**photopolymerizable photosensitive** compn., lithog. plates contg.)

IT 34330-11-5 91307-97-0 91308-01-9 91320-04-6 119141-83-2

119760-01-9 119760-03-1 119781-64-5 119781-66-7

RL: USES (Uses)

(**photosensitizer, photosensitive** lithog. plates contg.)

IT 94-36-0, Benzoyl peroxide, uses and miscellaneous 3006-86-8, 1,1-Bis(tert-butylperoxy)cyclohexane 11118-65-3, Methylcyclohexanone peroxide 12262-58-7, Cyclohexanone peroxide 33943-20-3, Di-tert-butyl diperoxy isophthalate

RL: USES (Uses)

(**polymn. initiator, photosensitive** lithog. plates contg.)

L48 ANSWER 72 OF 78 CA COPYRIGHT 2003 ACS

AN 103:203643 CA

TI Wear mechanism and ways to increase the durability of **photopolymer** printing plates

AU Velichko, E.; Osipova, T.; Zolotukhin, A.; Lazarenko, E. T.

CS Kiev, USSR

SO Poligrafiya (1985), (9), 22-4

CODEN: PLGFAH; ISSN: 0032-2717

DT Journal

LA Russian

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 36, 38

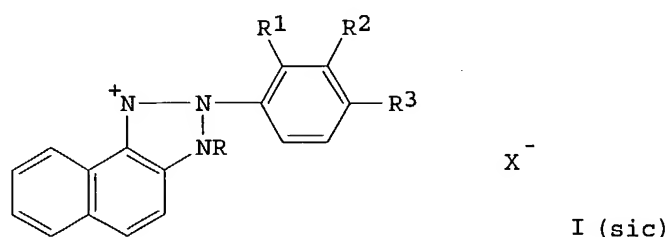
AB The wear of **photopolymer** printing plates is described according to a theory proposed by B. I. Kostetskii (1985) in terms of the sp. work of wear, crystallinity, av. size of globules and aggregates on the

OH; n = 1-4). Thus, a PET support was coated with a gelatin-Cu(Br,I) emulsion (32 mg Cu/100 cm²), immersed for 30 s at 20.degree. in an aq. developer soln. contg. L -ascorbic acid 0.183, L-glutamine 0.4 , and Na metaborate 0.026 mol, imagewise exposed to UV radiation, developed in the above developer for 5 min (25.degree.), and fixed in an aq. soln. contg. Na₂S₂O₃ 240, Na₂SO₃ 10, and NaHSO₃ 25 g to give an image with a D_{max}, D_{min}, and .gamma. of 3.2, 0.03, and 0.95, resp.

- ST copper halide **photosensitive** emulsion developer; cuprous halide **photog** emulsion developer; amino acid copper halide **photoimaging**; ascorbic acid copper halide **photoimaging**; amine copper halide **photog** development
- IT **Photographic** emulsions
(contg. copper(I) halide)
- IT **Photoimaging** compositions and processes
(copper(I) halide-based emulsions as, developer compn. for)
- IT Amines, uses and miscellaneous
Amino acids, compounds
Amino acids, uses and miscellaneous
Carboxylic acids, uses and miscellaneous
RL: USES (Uses)
(developer compn. for **photosensitive** copper(I) halide-based emulsions contg.)
- IT **Photographic** developers
(for copper(I) halide-contg. emulsions)
- IT Carboxylic acids, uses and miscellaneous
RL: USES (Uses)
(hydroxy, developer compn. for **photosensitive** copper(I) halide-based emulsions contg.)
- IT 50-81-7, uses and miscellaneous 55-55-0 56-40-6, uses and miscellaneous 56-45-1, uses and miscellaneous 56-84-8, uses and miscellaneous 56-85-9, uses and miscellaneous 56-86-0, uses and miscellaneous 56-87-1, uses and miscellaneous 61-90-5, uses and miscellaneous 62-57-7 69-72-7, uses and miscellaneous 70-26-8 70-47-3, uses and miscellaneous 71-00-1, uses and miscellaneous 72-19-5, uses and miscellaneous 73-22-3, uses and miscellaneous 74-79-3, uses and miscellaneous 78-90-0 92-43-3 93-62-9 107-15-3, uses and miscellaneous 107-97-1 108-00-9 109-76-2 109-81-9 110-72-5 111-39-7 111-41-1 122-87-2 134-03-2 139-13-9 141-82-2, uses and miscellaneous 142-73-4 302-72-7 302-84-1 498-40-8 499-83-2 505-47-5 516-06-3 598-41-4 621-92-1 657-27-2 1137-73-1 3731-51-9 6245-75-6 7378-23-6 7775-19-1 21291-99-6 26239-55-4 27822-92-0 29816-01-1 54646-39-8 86848-97-7 86849-27-6 86849-28-7
RL: USES (Uses)
(developer compn. for **photosensitive** copper halide emulsion contg.)
- IT 528-88-1
RL: USES (Uses)
(developer for **photosensitive** copper (I) halide-based emulsion contg.)
- IT 63-68-3, uses and miscellaneous
RL: USES (Uses)
(developer for **photosensitive** copper halide emulsion contg.)
- IT 51-35-4 51-45-6, uses and miscellaneous 52-52-8 54-85-3 70-26-8 77-92-9, uses and miscellaneous 84-88-8 85-87-0 86-59-9 89-65-6 93-10-7 97-05-2 147-85-3, uses and miscellaneous 150-25-4 305-84-0 327-57-1 407-41-0 499-82-1 505-47-5 553-53-7 556-50-3 627-01-0 644-42-8 658-79-7 704-15-4 869-19-2 1118-68-9 1121-22-8 1436-59-5 1606-01-5 2752-17-2 2756-85-6 3183-21-9 5423-54-1 6949-77-5 11000-17-2 16177-21-2 17057-00-0 20759-15-3 25303-14-4 63557-68-6 67967-11-7 86849-08-3
RL: USES (Uses)
(developer for **photosensitive** copper(I) halide-based emulsion contg.)

L2 ANSWER 11 OF 12 CA COPYRIGHT 2003 ACS
 AN 84:172199 CA
 TI Light-sensitive **photographic** material
 IN Riester, Oskar; Kampfer, Helmut; Hase, Marie; Oehlschlaeger, Hans
 PA Agfa-Gevaert A.-G., Fed. Rep. Ger.
 SO Ger. Offen., 18 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC G03C
 CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic Processes)
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-----------------|------|----------|-----------------|----------|
| PI | DE 2433072 | A1 | 19760122 | DE 1974-2433072 | 19740710 |
| PRAI | DE 1974-2433072 | | 19740710 | | |
| GI | | | | | |



AB Silver-free light-sensitive **photog.** recording materials having high light sensitivity and giving intensely colored images are composed of a support coated with a layer contg. a triazolium salt (I; R = Ph, p-HOC6H4; R1 = H, NO2, MeO, or R1R2 together form a benzene ring; R2 = H or R2R1 together form a benzene ring; R3 = H, Cl, MeO, NO2, or a heterocycle nucleus; X- = anion), a carboxylic acid, such as phenylglycine, .alpha.-anilinoisobutyric acid, phenylaminodiphenylacetic acid, N-(4-formylphenyl)-N-methylaminoacetic acid, and the like, and a binder. Thus, to a soln. contg. I (R = Ph; R1, R2 = H; R3 = 5-methyl-2-benzothiazolyl) 0.4 g, MeO 10, and 10% aq. gelatin 30 ml was added a soln. contg. phenylglycine 0.5, MeOH 5, and 10% aq. gelatin 20 ml with stirring. To this soln. was then added 10% poly(vinylpyrrolidone) 10 ml and 7.5% saponin 1.5 ml and the vol. brought up to 100 ml by the addn. of water. A **photog.** paper was then coated with this soln., dried, and exposed behind a .sqroot.2 step wedge with a 500 W lamp at 10 cm for 3 min to give an intense red image with 15 steps.

ST triazolium salt **photog** emulsion; silver free **photog** emulsion

IT Carboxylic acids, uses and miscellaneous
 RL: USES (Uses)
 (photog. silver-free emulsions contg. triazolium salts and)

IT **Photographic** emulsions
 (silver-free, contg. carboxylic acids and triazolium salts)

IT 1H-Naphtho[1,2-d]triazolium, 2-phenyl-, derivs., salts
 RL: USES (Uses)
 (photog. silver-free emulsions contg. carboxylic acids and)

IT 56862-95-4 59081-50-4 59081-51-5 59081-53-7 59081-54-8
 59081-55-9 59081-56-0 59081-57-1 59081-58-2 59081-59-3
 RL: USES (Uses)
 (photog. silver-free emulsions contg. carboxylic acids and)

IT 76-93-7, uses and miscellaneous 103-01-5 500-72-1 1137-73-1
 1922-78-7 5698-54-4 40643-55-8 59081-60-6 59081-61-7 59081-62-8
 RL: USES (Uses)
 (photog. silver-free emulsions contg. triazolium salts and)

L2 ANSWER 12 OF 12 CA COPYRIGHT 2003 ACS
 AN 81:165160 CA
 TI **Photoreduction** of dyes catalyzed by organic and biomolecules
 AU Pal, M. K.; Mazumdar, K. K.
 CS Fac. Sci., Univ. Kalyani, Kalyani, India
 SO Histochemistry (1974), 40(3), 267-74
 CODEN: HCMYAL; ISSN: 0301-5564
 DT Journal
 LA English
 CC 6-13 (General Biochemistry)
 Section cross-reference(s): 9, 28
 AB **Photoredn.** of methylene blue in the presence of various org. and biomols. was studied spectrophotometrically and potentiometrically. During the **photoredn.**, the emf of the system measured against calomel electrode increased and attained a plateau long before the complete redn. of the dye. Thus, the emf developed in this system is not that of the dye-leucodye. The emf was interpreted to be mainly that of dye-dye free radical, although dye-leucodye and dye free radical-leucodye may contribute to the emf value of the system. The free radical may be formed in the system immediately after exposure to light or even in the dark at high pH. **Photoredn.** of methylene blue in the presence of EDTA was completely inhibited by excess Mg²⁺. By using various compds. to act as electron donors in the **photoredn.**, compds. having the general formula R₁R₂NCH₂COOH caused redn. of methylene blue where R₁ and R₂ were CH₂COOH, alkyl, or aryl substitution. **Photoredn.** became faster with >1 CH₂COOH group in the compds. Glycine or N-methylglycine failed to act as a catalyst; N-phenylglycine or N,N-diethylglycine catalyzed the **photoredn.** N-Phenyl- or N-ethylaminodiacetic acid caused faster **photoredn.** of methylene blue. Analgin caused **photoredn.** even in dark. The dye capri blue was not **photoreduced** by EDTA though there was an increase in the emf of the system on its exposure to light; but the presence of methylene blue in the system catalyzed its **photoredn.**
 ST **photoredn** methylene blue histochem; EDTA methylene blue **photoredn**
 IT Electric potential
 (of capri blue and methylene blue, during **photoredn.**, histochem. in relation to)
 IT Reduction, **photochemical**
 (of dyes, by biomols. and org. mols., histochem. in relation to)
 IT 57-00-1 64-02-8 68-89-3 103-01-5 139-13-9 1137-73-1
 1606-01-5 5336-17-4
 RL: BIOL (Biological study)
 (**photoredn.** of methylene blue in presence of, elec. potential of, histochem. in relation to)
 IT 61-73-4 1787-57-1
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (**photoredn.** of, by biomols. and org. mols., histochem. in relation to)

=> log y

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| | ENTRY | SESSION |
| FULL ESTIMATED COST | 33.12 | 48.07 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| CA SUBSCRIBER PRICE | -7.44 | -7.44 |

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| NEWS | 17 | Dec 17 | TOXCENTER enhanced with additional content |
| NEWS | 18 | Dec 17 | Adis Clinical Trials Insight now available on STN |
| NEWS | 19 | Jan 29 | Simultaneous left and right truncation added to COMPENDEX, ENERGY, INSPEC |
| NEWS | 20 | Feb 13 | CANCERLIT is no longer being updated |
| NEWS | 21 | Feb 24 | METADEX enhancements |
| NEWS | 22 | Feb 24 | PCTGEN now available on STN |
| NEWS | 23 | Feb 24 | TEMA now available on STN |
| NEWS | 24 | Feb 26 | NTIS now allows simultaneous left and right truncation |
| NEWS | 25 | Feb 26 | PCTFULL now contains images |
| NEWS | 26 | Mar 04 | SDI PACKAGE for monthly delivery of multifile SDI results |
| NEWS | 27 | Mar 19 | APOLLIT offering free connect time in April 2003 |
| NEWS | 28 | Mar 20 | EVENTLINE will be removed from STN |
| NEWS | 29 | Mar 24 | PATDPAFULL now available on STN |
| NEWS | 30 | Mar 24 | Additional information for trade-named substances without structures available in REGISTRY |
| NEWS | 31 | Apr 11 | Display formats in DGENE enhanced |
| NEWS | 32 | Apr 14 | MEDLINE Reload |
| NEWS | 33 | Apr 17 | Polymer searching in REGISTRY enhanced |
| NEWS | 34 | Apr 21 | Indexing from 1947 to 1956 being added to records in CA/CAPLUS |
| NEWS | 35 | Apr 21 | New current-awareness alert (SDI) frequency in WPIDS/WPINDEX/WPIX |

NEWS 36 Apr 28 RDISCLOSURE now available on STN
NEWS 37 May 05 Pharmacokinetic information and systematic chemical names
added to PHAR

NEWS EXPRESS April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT
MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003
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NEWS INTER General Internet Information
NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

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PROPERTIES for more information. See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> s n phenyl glycine
4639330 N
8889814 PHENYL
414832 GLYCINE
L1 107 N PHENYL GLYCINE
(N(W) PHENYL(W) GLYCINE)

=> s n phenyl glycine/cn

L2 0 N PHENYL GLYCINE/CN

=> s n phenylglycine/cn

L3 0 N PHENYLGLYCINE/CN

=> s n phenyl glycine

4639330 N

8889814 PHENYL

414832 GLYCINE

L4 107 N PHENYL GLYCINE

(N(W) PHENYL(W) GLYCINE)

=> d 107

L4 ANSWER 107 OF 107 REGISTRY COPYRIGHT 2003 ACS

RN 103-01-5 REGISTRY

CN Glycine, N-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN (Phenylamino)acetic acid

CN Acetic acid, (phenylamino)-

CN Anilinoacetic acid

CN N-(Phenylamino)acetic acid

CN **N-Phenylglycine**

FS 3D CONCORD

MF C8 H9 N O2

CI COM

LC STN Files: BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT,

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45 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

638 REFERENCES IN FILE CAPLUS (1957 TO DATE)

33 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> s 103-01-5

L5 1 103-01-5

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=> s l5 and (infrared or infra adj red)

638 L5
221443 INFRARED
3779 INFRA
199 ADJ
326846 RED
0 INFRA ADJ RED
(INFRA(W)ADJ(W)RED)
L6 6 L5 AND (INFRARED OR INFRA ADJ RED)

=> d all 1-6

L6 ANSWER 1 OF 6 CA COPYRIGHT 2003 ACS
AN 99:96689 CA
TI The zinc tetraphenylporphin-sensitized photoredox reaction between N-phenylglycine and p-benzoquinone in polar solvents
AU Nishimoto, Seiichi; Tada, Hiroaki; Kagiya, Tsutomu
CS Dep. Hydrocarbon Chem., Kyoto Univ., Kyoto, 606, Japan
SO Journal of the Chemical Society, Perkin Transactions 2: Physical Organic Chemistry (1972-1999) (1983), (6), 873-7
CODEN: JCPKBH; ISSN: 0300-9580
DT Journal
LA English
CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 22
AB The photoredox reaction between N-phenylglycine (I) and p-benzoquinone (II) sensitized by Zn tetraphenylporphine (III) was studied in various solvents under N at 25.degree.. Decarboxylation of I and redn. of II occurred equimol. to give PhN:CH2, CO2, and 1,4-(HO)2C6H4 when a MeCN soln. of I and II was irradiated at >500 nm in the presence of a catalytic amt. of III. III was recovered almost quant. after the photoreaction. The conversion of I increased linearly with increasing the molar ratio of III to I up to .apprx.2 .times. 10-3. The quantum yield for the III-sensitized decarboxylation of I in N-purged MeCN soln. was 0.20. The sensitizing activity of III was remarkably enhanced upon increasing the solvent polarity.
ST phenylglycine benzoquinone photoredox; zinc phenylporphine sensitizer photoredox; decarboxylation phenylglycine redn benzoquinone
IT Ultraviolet and visible spectra
(of benzoquinone, phenylglycine, zinc tetraphenylporphine, and their mixt.)
IT **Infrared** spectra
Nuclear magnetic resonance
(of benzoquinone-phenylglycine-zinc tetraphenylporphine mixt., irradiated in relation to)
IT Decarboxylation
(of phenylglycine, in photoredox reaction with benzoquinone in presence of zinc tetraphenylporphine)
IT Redox reaction
(photochem., of benzoquinone and phenylglycine in presence of zinc

tetraphenylporphine)
 IT 103-01-5
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (decarboxylation of, in photoredox reaction with benzoquinone in
 presence of zinc tetraphenylporphine)
 IT 106-51-4, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (photochem. redox reaction of, with phenylglycine in presence of zinc
 tetraphenylporphine)
 IT 14074-80-7
 RL: USES (Uses)
 (sensitizer, in photoredox reaction of benzoquinone and phenylglycine)

L6 ANSWER 2 OF 6 CA COPYRIGHT 2003 ACS

AN 58:52930 CA

OREF 58:8962h,8963a-h,8964a-b

TI The oxidation products of thiocarboxylic acid amides. VII. Oxidation
 reactions of thioamides of oxalic acid

AU Walter, Wolfgang; Bode, Klaus Dieter

CS Univ. Hamburg, Germany

SO Ann. (1962), 660, 74-84

DT Journal

LA Unavailable

CC 35 (Noncondensed Aromatic Compounds)

AB The oxidn. of (CSNH₂)₂ (I) with H₂O₂ under mild conditions yields 3
 thioamide S-oxides of which 1 was isolated and identified as [C(SO)NH₂]₂
 (II). H₂NSCC(SO)NH₂ (III) was obtained by the oxidn. of H₂NSCCONH₂ (IV).
 N-Substituted dithiooxamides react with H₂O₂ with the oxidative
 elimination of S to yield the corresponding oxamides; only in the oxidns.
 of (CSNHCH₂CO₂H)₂ (V) and (CSNHCH₂CH₂OH)₂ (VI) could S-oxides be shown to
 be intermediates. O is introduced into monothiooxamides only if a primary
 thioamide group is present. In the carbethoxythioformamides, the thioamide
 group is oxidized to the thioamide S-oxide group regardless whether it is
 primary, secondary, or tertiary. EtO₂CC(SO)NH₂ (VII) and EtO₂CC-(SO)NMe₂
 (VIII) were isolated. The color reactions with Fe⁺⁺⁺, Co⁺⁺, Ni⁺⁺, Cu⁺⁺,
 and Pb⁺⁺ salts were detd. for the following compds. (colors given in the
 order indicated): I, red-brown, brown, blue-violet, dark green, --;
 (CSNHMe)₂ (IX), --, --, purple, dark green, --; (CSNH₂Et)₂ (X), --, --,
 purple, green, --; (CSNHCH₂Ph)₂ (XI), --, --, yellow-green, brown, --;
 N,N'-dicyclohexyldithiooxamide (XII), light brown, --, yellow-green,
 brown-green, --; V, red-brown, --, yellowish, dark brown (turning light
 green), light-yellow; VI, pink (with a blue-green border), brown,
 red-violet, green, --. I (100 mg.) in 5 cc. HCONMe₂ treated with 0.5 cc.
 30% H₂O₂ and chromatographed on paper gave spots for IV, RT 0.68 (blue
 with FeCl₃), II 0.75 (olive-green with FeCl₃), and presumably
 H₂NSCCS(O)NH₂ 0.92 (red-brown with FeCl₃); all paper chromatograms were run
 with 35:35:30 C₅H₅N-iso-AmOH-H₂O (solvent A). I (2 g.) in 50 cc. C₅H₅N,
 130-40 cc. MeOH, and 900 cc. CHCl₃ treated with 32 cc. 30% H₂O₂ in 40 cc.
 MeOH, cooled to -12 to -14.degree., and filtered after 2-3 days gave 1.73
 g. II, decompd. 156-8.degree.; the light yellow mother liquor concd. to
 about 50 cc. gave 0.43 g. (CONH₂)₂ (XIII). II (100 mg.) in 30 cc. Me₂SO
 treated with H₂S during 10 min. gave a soln. contg. I. II (40 mg.) in 10
 cc. HCONMe₂ treated several hrs. at room temp. with 0.1 cc. H₂O₂ gave only
 XIII. VI (210 mg.) in 3 cc. HCONMe₂ treated with 1 cc. 30% H₂O₂ and
 chromatographed on paper after 1.5 hrs. showed the presence of VI, R_f 0.90
 (pink with FeCl₃) (solvent A), and of the S-oxide of VI, R_f 0.59
 (olive-green with FeCl₃) (solvent A). V (240 mg.) in 10 cc. HCONMe₂
 treated with 1 cc. 30% H₂O₂ and chromatographed showed V, R_f 0.77
 (red-brown with FeCl₃), and the S-oxide of V, R_f 0.59 (olive-green with
 FeCl₃). IX (150 mg.) in 2-4 cc. HCONMe₂ treated with 0.5-2 cc. 30% H₂O₂,
 kept 24 hrs., filtered from the pptd. S, and evapd. yielded 100 mg.
 (CONMe₂)₂, m. 216.degree. (hot H₂O). Similar oxidns. of the following
 dithiooxamides were preformed (solvent used and m.p. of the resulting
 corresponding oxamide given): X, HCO-NMe₂ (tetrahydrofuran, dioxane),
 176-8.degree. (EtOH); XI, HCO-NMe₂ (tetrahydrofuran, C₅H₅N, MeOH),

218-19.degree. (AcOH); XII, HCONMe₂ (tetrahydrofuran, dioxane, C₅H₅N, MeOH), 270.degree. (EtOH); (CSNHPh)₂, HCONMe₂ (tetrahydrofuran, dioxane), 246-7.degree. (C₆H₆); VI, MeOH, 170.degree. (MeOH); V, MeOH, 248.degree. (decompn.) (aq. HCONMe₂). (CSNHCH₂CO₂Et)₂ (1.5 g.) in 30 cc. HCONMe₂ heated 0.5 hr. at 50-60.degree. and then to 80-90.degree. and kept several days gave only unreacted starting material. EtO₂CCONH₂ (50 g.) and 22.8 g. powd. P₂S₅ yielded 33 g. EtO₂-CCSNH₂ (XIV), yellow leaflets, m. 58-60.degree. (EtOH). XIV (13.3 g.) and 1.7 g. NH₃ in 30 cc. EtOH gave 7 g. IV, lemon-yellow crystals, m. 179-81.degree. (hot EtOH). IV (1.2 g.) in 15 cc. HCO-NMe₂ treated with 9 cc. 30% H₂O₂ in 3 portions at about 40.degree., cooled 4 hrs. in the refrigerator, and filtered yielded 920 mg. H₂NOCC(SO)NH₂, yellow crystals, m. 173-4.degree. (decompn.); it gives a deep blue color with FeCl₃ turning purple-red upon diln. with HCONMe₂. XIV (10 g.) in 20 cc. MeOH treated with 2.5 g. gaseous MeNH₂ and refrigerated 2 hrs. yielded 5.6 g. MeNH-OCCSNH₂ (XV), yellow prisms, m. 139-40.degree. (MeOH). XV (0.5 g.) in 10 cc. MeOH treated about 0.5 hr. at 40-50.degree. with 1 cc. 30% H₂O₂, poured into an equal vol. satd. aq. NaCl, and extd. with CH-Cl₃ yielded 370 mg. MeNHOC(SO)NH₂, m. 144-5.degree. (EtOAc); it gives with FeCl₃ a blue color. IV (2.15 g.) and 1.5 g. MeNH₂.HCl yielded 400 mg. MeNHSCCONH₂ (XVI), yellow, m. 120-1.degree. (EtOAc). XVI (100 mg.) in HCONMe₂ treated dropwise with 0.9 cc. 30% H₂O₂ and concd. gave H₂NOCCONHMe, m. 226.degree. (50% EtOH). Me₂NOCCSNH₂ (5 g.) in 50 cc. MeOH treated 0.5 hr. with 5 cc. 30% H₂O₂, poured after 0.5 hr. into 50 cc. satd. aq. NaCl, and extd. with CHCl₃, yielded 3.7 g. (crude) Me₂NOCC(SO)NH₂, pale yellow prisms, m. 124-5.degree. (MeOH-C₆H₆); it gives with FeCl₃ a blue color turning purple-red on diln. with HCONMe₂. Me₂NSCCONH₂ (59 g.) in 400 cc. dry C₅H₅N refluxed 1 hr. with 42.2 g. P₂S₅, filtered, and evapd., and the sirupy residue dissolved in 400 cc. EtOH, treated with C, and filtered gave from the filtrate 14 g. Me₂NSCCONH₂ (XVII), needles, m. 145.5-6.5.degree. (CHCl₃). XVII (1.5 g.) in 30 cc. MeOH treated with 2.0 cc. 30% H₂O₂, filtered after 10 min., poured into satd. aq. NaCl, and extd. with CHCl₂ yielded 65 mg. unchanged XVII, red, m. 145.5.degree.. Na phenylcarbamoylmethyl thiosulfate (10 g.) and 6 g. cyclohexylamine gave 5.4 g. NS-cyclohexyl-NO-phenyl-monothiooxamide (XVIII), pale yellow needles, m. 130.degree.. XVIII (100 mg.) in 2 cc. HCONMe₂ or 2 cc. MeCN treated with 0.5 cc. 30% H₂O₂, warmed a few min. to 90.degree., and kept several days at room temp. gave in both runs N-cyclohexyl-N'-phenyloxamide, needles, m. 208-9.degree.. PhNHOCSSNHPh (224 mg.) in 10 cc. HCONMe₂ treated with 1 cc. 30% H₂O₂ gave (CONHPh)₂, leaflets, m. 246.degree.. XIV (5 g.) in 50 cc. CHCl₃ and 40 cc. MeOH treated with 12 cc. 30% H₂O₂ in small portions at 40.degree., poured after 35 min. into 60 cc. H₂O, and worked up yielded 4.1 g. VII, lemon-yellow crystals, m. 92.5-3.5.degree. (C₆H₆). EtO₂CCONHMe (13 g.) in 130 cc. dry C₅H₅N refluxed 1 hr. with 5 g. P₂S₅, filtered hot, and evapd., and the sirupy residue treated with C in EtOH yielded 3.1 g. Et₂OCCSNHMe (XIX), b11 136-8.degree., Rf 0.90. XIX (g.) in 10 cc. CHCl₃ and 5 cc. MeOH treated 2 hrs. at 38-40.degree. with 1 cc. 30% H₂O₂ and poured into 10 cc. satd. aq. NaCl, and the org. phase worked up yielded 600 mg. Et₂OCC(SO)-NHMe, pale yellow crystals, m. 32-4.degree. (petr. ether-EtOAc), Rf 0.53. EtO₂CCONMe₂ (72.6 g.) in 500 cc. dry C₅H₅N refluxed 1 hr. with 42 g. P₂S₅, concd. to 1/3 vol., poured with stirring into 1 l. H₂O, filtered, and extd. with CHCl₃ yielded 34 g. EtO₂CCS-NMe₂ (XX), pale yellow crystals, m. 46-7.degree. (EtOH). XX (5 g.) in 50 cc. MeOH and 17.5 cc. 30% H₂O₂ heated 20 min. at 40-50.degree., poured into 50 cc. satd. sq. NaCl, and extd. with CHCl₃ yielded 4.6 g. VIII, lemon-yellow rhombs, m. 46-7.degree., probably contg. some XX; it gives with FeCl₃ a red-brown color.

- IT Color reactions
 - (of dithiooxamides with metals)
- IT Spectra, **infrared**
 - (of tricarboxylic acid esters)
- IT Cobalt, with dithiooxamide
 - Cobalt, with dithiooxamide
 - Cobalt, with N,N'-bis(2-hydroxyethyl)dithiooxamide

Cobalt, with N,N'-bis(2-hydroxyethyl)dithiooxamide
 Glycine, N,N'-(dithiooxalyl)di-, copper complex
 Glycine, N,N'-(dithiooxalyl)di-, iron complex
 Glycine, N,N'-(dithiooxalyl)di-, lead complex
 Lead, with N,N'-(dithiooxalyl)diglycine
 Oxamic acid, N,N-dimethyl-2-thio-, S-oxide, Et ester, compd. with Et
 N,N-dimethyl-2-thiooxamate
 Oxamide, dithio-, cobalt complex
 Oxamide, dithio-, copper complex
 Oxamide, dithio-, iron complex
 Oxamide, dithio-, S,S-dioxide
 Oxamide, N,N'-bis(2-hydroxyethyl)dithio-, cobalt complex
 Oxamide, N,N'-bis(2-hydroxyethyl)dithio-, copper complex
 Oxamide, N,N'-bis(2-hydroxyethyl)dithio-, iron complex
 Oxamide, N,N'-dibenzylidithio-, copper complex
 Oxamide, N,N'-dicyclohexyldithio-, copper complex
 Oxamide, N,N'-dicyclohexyldithio-, iron complex
 Oxamide, N,N'-diethyldithio-, copper complex
 Oxamide, N,N'-dimethyldithio-, copper complex
 IT Iodonium compounds, diaryl-
 (salts)
 IT Copper compounds
 Copper compounds
 (with dithiooxamide and derivs.)
 IT 79-40-3, Oxamide, dithio-
 (derivs., reaction with H2O2)
 IT 79-40-3, Oxamide, dithio-
 (oxidn. of)
 IT 95-99-8, Glycine, N,N'-(dithiooxalyl)di- 103-01-5, Glycine,
 N-phenyl- 120-86-5, Oxamide, N,N'-bis(2-hydroxyethyl)dithio- 615-35-0,
 Oxamide, N,N'-dimethyl- 615-84-9, Oxamide, N,N'-diethyl- 620-81-5,
 Oxanilide 1871-89-2, Oxamide, N,N'-bis(2-hydroxyethyl)- 3299-64-7,
 Oxamide, N,N'-dicyclohexyl- 3468-99-3, Acetic acid, diphenyl-, ethyl
 ester 3551-78-8, Oxamide, N,N'-dibenzyl- 5467-22-1, Acetic acid,
 triphenyl-, ethyl ester 16475-48-2, Oxamide, thio- 16703-48-3, Oxamic
 acid, N,N-dimethyl-2-thio-, ethyl ester 16890-69-0, Oxamic acid,
 N-methyl-2-thio-, ethyl ester 16890-70-3, Oxamide, N1-methyl-1-thio-
 22509-04-2, Oxamide, methyl- 23354-00-9, Glycine, N,N'-oxalyldi-
 26536-35-6, Acetamide, 2,2,2-triphenyl- 41168-87-0, Oxamide,
 N2-methyl-1-thio- 41168-96-1, Oxamide, N1,N1-dimethyl-1-thio- 55285-81
 -9, Cyclohexanecarboxylic acid, 2-oxo-1-phenyl-, ethyl ester 89695-53-4,
 Oxamide, N2,N2-dimethyl-1-thio-, S-oxide 89712-28-7, Oxamide,
 N2-methyl-1-thio-, S-oxide 89830-69-3, Glycine, N,N'-(dithiooxalyl)di-,
 S-oxide 89924-49-2, Oxamic acid, 2-thio-, S-oxide, Et ester
 90801-72-2, Oxamide, dithio-, S-oxide(?) 91469-65-7, Oxamic acid,
 N-methyl-2-thio-, S-oxide, Et ester 92276-94-3, Oxamide, thio-, S-oxide
 92292-89-2, Oxamide, N-cyclohexyl-N'-phenyl- 92474-70-9, Oxamide,
 N,N'-bis(2-hydroxyethyl)dithio-, S-oxide 92652-62-5,
 Cyclohexanecarboxylic acid, 2-oxo-1-phenyl-, ethyl ester, oxime
 93535-78-5, Oxamide, N2-cyclohexyl-N1-phenyl-1-thio- 96372-49-5,
 1,1,2-Ethanetricarboxylic acid, triphenyl-, triethyl ester 96433-88-4,
 Oxamic acid, N,N-dimethyl-2-thio-, ethyl ester, compd. with Et
 N,N-dimethyl-2-thiooxamate S-oxide 96810-53-6, 1,1,2-
 Ethanetricarboxanilide, 1,2,2-triphenyl-
 (prepn. of)
 IT 7705-08-0, Iron chloride, FeCl3
 (reaction with thiooxamide and derivs.)
 IT 7722-84-1, Hydrogen peroxide
 (reactions of, with dithiooxamides)
 IT 7439-89-6, Iron 7439-89-6, Iron
 (with dithiooxamide and derivs.)

TI B. K. Wasson An addition compound between quinaldic acid and Nphenylglycine
 AU Oda, Daihei
 CS Defence Acad., Yokosuka
 SO Nippon Kagaku Zasshi (1961), 82, 630-2
 DT Journal
 LA Unavailable
 CC 31 (Heterocyclic Compounds-One Hetero Atom)
 AB Addn. compd. between quinaldic acid (I) and PhNHCH₂CO₂H (II) was prepd. to study the nature of addn. compd. between I and tetrahydroquinaldic acid (III). Adding II to hot soln. of I in H₂O formed yellow complex I.II. I and PhNH₂ or III and quinoline formed a reddish orange color on fusion but the color faded on cooling. Crystn. of I.III from AcOH easily sepd. the components. As to the complex I.III, the following facts were found: esterification of one of the CO₂H groups gives fading color at low temp., CH₂OH group instead of CO₂H gives clear color, PhN group is necessary for developing color, CO₂H of pyridine ring is necessary, and the color is not observed in EtOH. Infrared spectra of I.II and I.III show N-H stretching bands and the presence of a CO₂H group. Above results together with the fact that PhNMeCH₂CO₂H (IV) forms a complex with I indicate that the complex has a cyclic structure in which CO₂H of I forms a H-bond with the N of II and that of H forms a H-bond with the N of I. M.p. of I.II and I.IV are given as 159.5-61.5.degree. and 127-9.degree., resp.

IT Spectra, infrared
 (of quinaldic acid reaction products with amino acids)
 IT Quinaldic acid, 1,2,3,4-tetrahydro-
 (reaction product with N-phenylalanine)
 IT 90800-33-2, 5,8-Quinolinedione, 2-methyl-
 (derivs.)
 IT 90924-52-0, 4,5,8-Quinolinetriol, 2-methyl-
 (prepn. of)
 IT 15727-49-8, Alanine, N-phenyl-
 (reaction product with 1,2,3,4-tetrahydroquinaldic acid)
 IT 103-01-5, Glycine, N-phenyl-
 (reaction product with quinaldic acid)
 IT 93-10-7, Quinaldic acid
 (reaction product with N-phenylglycine)

L6 ANSWER 4 OF 6 CA COPYRIGHT 2003 ACS
 AN 56:29324 CA
 OREF 56:5547h-i,5548a-b
 TI Infrared spectra of aqueous solutions. I. Metal chelate compounds of amino acids
 AU Nakamoto, Kazuo; Morimoto, Yukiyoshi; Martell, Arthur E.
 CS Clark Univ., Worcester, MA
 SO J. Am. Chem. Soc. (1961), 83, 4528-32
 CODEN: JACSAT; ISSN: 0002-7863
 DT Journal
 LA Unavailable
 CC 10 (Spectra and Some Other Optical Properties)
 AB The infrared spectra of 30 metal chelate compds. prepd. from 8 amino acids are measured both in aq. soln. and in the cryst. state. The frequency order of the carboxyl stretching vibration in a series of compds. of the same ligand can be used as a measure of relative strengths of the M-O bonds if comparison is made from data from pure samples in the same phys. state. The order found is: Ni(II) < Zn(II) < Cu(II) < Co(III) < Pd(II) < Pt(II) < Cr(III). The spectra of the aq. soln. and the hydrated and dehydrated cryst. state are compared to study H bonding. Compds. of glycine with Ni, Zn, Cu, Co, Pd, Pt, and Cr; .alpha.-alanine with Ni, Zn, Cu, Co, Pt, and Cr; .beta.-alanine with Ni and Cu; dl-valine with Ni and Cu; dl-iso-leucine with Ni and Cu; N-methylglycine with Ni and Cu; N-phenylglycine (I) with Ni, Co, and Cu; N,N-dimethylglycine with Ni and Cu were prepd. Some new compds. are prepd. Thus, an EtOH soln. of I is added to NaOEt in EtOH and the Na N-phenylglycinate thus obtained is dissolved in H₂O and mixed with a soln. of CuCl₂. The solid green ppt.

formed is bis(N-phenylglycino)Cu(II). Similarly, Ni(PhNHCH₂COO)2·3H₂O, Co(PhNHCH₂COO)2·2H₂O, Ni(Me₂NCH₂COO)2·2H₂O, Ni(EtCH(Me)CH(NH₂)COO)2·2H₂O, Ni(Me₂CH-CH(NH₂)COO)2·2H₂O, and Ni(NH₂CH₂CH₂COO)2·2H₂O are prepd. The hydrates are dehydrated by gentle heating. **Infrared** spectra are measured with NaCl optics. Measurements in 99.5% D₂O soln. are made in 0.1-ml. cells having BaF₂ windows 0.019 mm. thick. The soln. concns. are 3-15% by wt. Spectra of the solids are measured in KBr disks.

- IT Hydrogen bonds
(in amino acid-metal chelate solns.)
- IT Spectra, **infrared**
(of amino acid chelates)
- IT Nickel, bis(valinato)-
(prepn. and spectrum of)
- IT Cobalt, tris(alaninato)-
Copper, bis(isoleuoinato)-
Copper, bis(valinato)-
Nickel, bis(alaninato)-
(spectrum of)
- IT 103-01-5, Glycine, N-phenyl- 107-95-9, .beta.-Alanine
(complexes with metals, spectra of)
- IT 56-41-7, Alanine 72-18-4, Valine
(complexes, with metals, spectra of)
- IT 56-40-6, Glycine 73-32-5, Isoleucine 107-97-1, Sarcosine 1118-68-9,
Glycine, N,N-dimethyl-
(metal complexes, spectra of)
- IT 14040-31-4, Nickel, bis(.beta.-alaninato)- 15225-76-0, Nickel,
bis(isoleucinato)- 56819-41-1, Nickel, bis(N-phenylglycinato)-
87564-93-0, Copper, bis(N-phenylglycinato)- 93482-94-1, Nickel,
bis(N,N-dimethylglycinato)-
(prepn. and spectrum of)
- IT 13479-54-4, Copper, bis(glycinato)- 13479-55-5, Nickel, bis(glycinato)-
13842-97-2, Copper, bis(.beta.-alaninato)- 14221-43-3, Cobalt,
tris(glycinato)- 14263-10-6, Copper, bis(alaninato)- 14281-83-5, Zinc,
bis(glycinato)- 14592-68-8, Palladium, bis(glycinato)- 14592-69-9,
Platinum, bis(glycinato)- 14647-06-4, Zinc, bis(alaninato)-
16483-21-9, Chromium, tris(alaninato)- 18253-88-8, Copper,
bis(sarcosinato)- 21747-22-8, Nickel, bis(sarcosinato)- 30596-51-1,
Chromium, tris(glycinato)- 34275-62-2, Copper, bis(N,N-
dimethylglycinato)- 56870-40-7, Cobalt, bis(N-phenylglycinato)-
74868-20-5, Platinum, bis(alaninato)-
(spectrum of)

L6 ANSWER 5 OF 6 CA COPYRIGHT 2003 ACS

AN 51:28704 CA

OREF 51:5559a-d

TI **Infrared** spectra of secondary amines and their salts

AU Heacock, R. A.; Marion, Leo

CS Natl. Research Council, Ottawa

SO Can. J. Chem. (1956), 34, 1782-95

DT Journal

LA Unavailable

CC 3 (Electronic Phenomena and Spectra)

AB Frequencies of absorption bands in various significant regions of the spectrum from 600 to 4000 cm.⁻¹ are given for 19 secondary amines and for hydrochlorides or other salts of each amine, as well as for several salts of primary and tertiary amines. Secondary amines can be detected by the appearance of a band in the region 1620-1560 cm.⁻¹ in the spectra of their salts which is invariably absent in the spectra of the bases themselves. This band is assigned to NH₂⁺ deformation. The spectra of aromatic bases are complicated by ring absorption in the same region, but in many cases the assignment can be made, although with less certainty. For zwitterions the correlation is more difficult. The normal NH stretching band of secondary amines is attenuated in the salt spectra and displaced to lower frequencies. The assignment of NH₂⁺ vibration bands is supported by the shifts observed upon deuteration of piperidine-HCl. Reaction of dry HCl

with a soln. of 5,6-dihydrophenanthridine in benzene yields the hydrochloride, which seps. from aq. alc. HCl as colorless needles, m. 198.degree.. Anhyd. piperazine perchlorate, m. 308.degree. (decompn.), is prepd. by drying the hydrate at 100.degree. in vacuo. Repeated heating to 80.degree. of piperidine-HCl in D2O soln. yields N-deuteriopiperidinium deuteriochloride, of which 6 g. is added to a cool soln. of 2.4 g. NaOD in 15 ml. D2O, the soln. satd. with Na2SO4 and extd. with dry ether, the ext. evapd. and distd. to yield N-deuteriopiperidine, a colorless liquid, b. 106-8.degree..

- IT Amines
(and compds., spectra of)
- IT Infrared spectra
(of amines (secondary) and their salts)
- IT Anolobina
Anolobina, hydrochloride
Cytisine, 3-methyl-
Morpholine, hydrochloride
Piperidine, hydrochloride
Piperidine-1-d, hydrochloride-d
Proline
Proline, hydrochloride
Pseudoconhydrine, hydrochloride
Pyrrolidine, picrate
(spectra of)
- IT Ethanol, 2,2'-iminodi-, nitrate
Phenethylamine, N,N,.alpha.-trimethyl-, d-
(spectrum of)
- IT Norephedrine, N,N-dimethyl, hydrochloride
(spectrum of 1-)
- IT 119-68-6, Anthranilic acid, N-methyl-
(and derivs., spectra of)
- IT 108-91-8, Cyclohexylamine 110-85-0, Piperazine
(and salts, spectra of)
- IT 75-50-3, Trimethylamine 103-01-5, Glycine, N-phenyl- 103-69-5,
Aniline, N-ethyl- 107-97-1, Sarcosine 110-89-4, Piperidine 110-91-8,
Morpholine 122-39-4, Diphenylamine 123-75-1, Pyrrolidine 140-55-6,
Pseudoconhydrine 485-35-8, Cytisine 506-59-2, Dimethylamine,
hydrochloride 537-67-7, Diphenylamine, hydrochloride 593-81-7,
Trimethylamine, hydrochloride 637-96-7, Sarcosine, hydrochloride
694-58-6, Piperidine-1-d 1615-80-1, Hydrazine, 1,2-diethyl- 2739-17-5,
Quinoline, 1,2,3,4-tetrahydro-, hydrochloride 4348-19-0, Aniline,
N-ethyl-, hydrochloride 27799-79-7, Phenanthridine, 5,6-dihydro-
56676-71-2, Glycine, N-phenyl-, hydrochloride 100727-06-8,
Phenanthridine, 5,6-dihydro-, hydrochloride 112574-30-8, Cytisine,
3-methyl-, perchlorate 115051-74-6, Cytisine, perchlorate 117882-47-0,
Hydrazine, 1,2-diethyl-, hydrochloride
(spectra of)
- IT 51-92-3, Ammonium, tetramethyl- 3426-74-2, Ammonium, trimethylphenyl-
(spectrum of)

L6 ANSWER 6 OF 6 CA COPYRIGHT 2003 ACS

AN 51:28703 CA

OREF 51:5558i,5559a

TI Infrared absorption spectra of the N-CH3 radical

AU Oseko, Shigeo

SO J. Pharm. Soc. Japan (1957), 77, 120

DT Journal

LA Unavailable

CC 3 (Electronic Phenomena and Spectra)

AB Examn. of infrared absorption spectra of 1-ephedrine in CHCl3 showed absorption at 3.56 .mu.. Similarly, the following compds. were tested (compd. and absorption wave length in .mu. given): d-PhCH2CH(NHMe)Me, 3.57; dl-PhCH(NHMe)Me, 3.57; l-N-methylephedrine, 3.54-3.59; d-PhCH2CH(NMe2)Me, 3.54-3.59; dl-PhCH(NMe2)Me, 3.55-3.60; dl-6-dimethylamino-4,4-diphenyl-3-heptanone, 3.52-3.60.

IT Amines
 (and compds., spectra of)

IT **Infrared spectra**
 (of methylamino group in 1-ephedrine and related compds.)

IT Methylamino group
 (spectrum of, in 1-ephedrine and related compds.)

IT Anolobina
 Proline
 Pyrrolidine, picrate
 (spectra of)

IT Ephedrine
 Ethanol, 2,2'-iminodi-, nitrate
 Methadone, dl-
 Phenethylamine, N,.alpha.-dimethyl-, d-
 Phenethylamine, N,N,.alpha.-trimethyl-, d-
 (spectrum of)

IT 119-68-6, Anthranilic acid, N-methyl-
 (and derivs., spectra of)

IT 103-01-5, Glycine, N-phenyl- 103-69-5, Aniline, N-ethyl-
 107-97-1, Sarcosine 110-91-8, Morpholine 122-39-4, Diphenylamine
 123-75-1, Pyrrolidine 124-40-3, Dimethylamine 140-55-6,
 Pseudoconhydrine 485-35-8, Cytisine 506-59-2, Dimethylamine,
 hydrochloride 1615-80-1, Hydrazine, 1,2-diethyl- 27799-79-7,
 Phenanthridine, 5,6-dihydro-
 (spectra of)

IT 2449-49-2, Benzylamine, N,N,.alpha.-trimethyl- 32512-24-6, Benzylamine,
 N,.alpha.-dimethyl-
 (spectrum of dl-)

=> d his

(FILE 'HOME' ENTERED AT 10:14:09 ON 05 MAY 2003)

FILE 'REGISTRY' ENTERED AT 10:14:14 ON 05 MAY 2003

L1 107 S N PHENYL GLYCINE
 L2 0 S N PHENYL GLYCINE/CN
 L3 0 S N PHENYLGLYCINE/CN
 L4 107 S N PHENYL GLYCINE
 L5 1 S 103-01-5

FILE 'CA' ENTERED AT 10:15:33 ON 05 MAY 2003

L6 6 S L5 AND (INFRARED OR INFRA ADJ RED)

=> s l5 and photo?

638 L5

1144659 PHOTO?

L7 311 L5 AND PHOTO?

=> s l7 and ir

493420 IR

L8 7 L7 AND IR

=> s l8 not l6

L9 7 L8 NOT L6

=> d all 1-7

L9 ANSWER 1 OF 7 CA COPYRIGHT 2003 ACS

AN 132:258189 CA

TI Near-IR sensitive polymerizable composition for lithographic
 plate

IN Urano, Toshiyoshi; Hino, Etsuko

PA Mitsubishi Chemical Industries Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 37 pp.

CODEN: JKXXAF

DT Patent
LA Japanese
IC ICM G03F007-027
ICS C08F002-50; G03F007-00; G03F007-004; G03F007-028; G03F007-031
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|-------------|-------------|----------------------------------|----------|
| PI | JP 2000098603 | A2 | 20000407 | JP 1998-272845 | 19980928 |
| PRAI | JP 1998-272845 | | 19980928 | | |
| AB | The near-IR sensitive polymerizable compn. for lithog. plate has an ethylenic unsatd. compd., a cyanine dye cation with heterocyclic rings connected through a polymethine chain, an org. borate anion, and an aliph. amino acid, an aliph. amino acid ester, or a dipole ion of aliph. amino acid or the ester. The compn. provides the high sensitivity towards near-IR light, the excellent stability over time, and the insensitivity towards UV light. | | | | |
| ST | near IR sensitive photopolymerizable compn lithog plate | | | | |
| IT | Lithographic plates (near-IR sensitive polymerizable compn. for lithog. plate) | | | | |
| IT | 103-01-5, N-Phenylglycine | 21911-84-2 | 24305-03-1 | 47252-39-1 | |
| | 62750-11-2 | 64401-02-1 | 77001-81-1 | 117522-01-7, Tetramethylammonium | |
| | n-butyltriphenylborate | 191726-37-1 | 193687-62-6 | 193687-63-7 | |
| RL: | TEM (Technical or engineered material use); USES (Uses) (near-IR sensitive polymerizable compn.) | | | | |

L9 ANSWER 2 OF 7 CA COPYRIGHT 2003 ACS
AN 130:244474 CA
TI Formation of resist pattern with resistance to plating
IN Hyuga, Atsuyoshi; Sato, Hiroaki
PA Nippon Synthetic Chemical Industry Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF

DT Patent
LA Japanese
IC ICM G03F007-004
ICS G03F007-004; G03F007-027; G03F007-031; G03F007-40; H05K003-06; H05K003-18
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|--|---|-----------------|----------|
| PI | JP 11084641 | A2 | 19990326 | JP 1997-260847 | 19970908 |
| PRAI | JP 1997-260847 | | 19970908 | | |
| AB | The method involves forming a photosensitive resin compn. layer contg. (A) a base polymer with acid value 95-250 mg/KOH and av. mol. wt. 5000-200,000, (B) an ethylenic unsatd. compd. contg. .gtoreq.50 wt.% ethyleneoxide-modified trimethylolpropane triacrylate, and (C) a polymn. initiator on a metal substrate surface to obtain a resist, exposing, developing, and heating the resist by far IR ray radiation. The pattern shows excellent sensitivity, resoln., resist-peeling property, adhesion to the substrate, and resistance to etching and plating. | | | | |
| ST | resist pattern formation ethylenic unsatd compd; IR radiation | | | | |
| IT | resist pattern formation; plating resistance resist pattern formation IR radiation Photoresists (formation of resist pattern with resistance to plating) | | | | |
| IT | 28262-63-7P, Butyl methacrylate-methacrylic acid-methyl methacrylate copolymer | 56925-73-6P, Butyl methacrylate-2-ethylhexyl | acrylate-methacrylic acid-methyl methacrylate copolymer | | |

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(formation of resist pattern with resistance to plating)

IT 77181-47-6, 2,2'-Dimethoxy-2-phenylacetophenone

RL: RCT (Reactant); RACT (Reactant or reagent)

(formation of resist pattern with resistance to plating)

IT 103-01-5, N-Phenylglycine 811-32-5, 2,4,5-Triphenylimidazole dimer 15625-89-5D, Trimethylolpropane triacrylate, ethylene oxide-modified 52496-08-9, Polypropylene glycol diacrylate

RL: TEM (Technical or engineered material use); USES (Uses)

(formation of resist pattern with resistance to plating)

L9 ANSWER 3 OF 7 CA COPYRIGHT 2003 ACS

AN 130:102883 CA

TI Near IR-sensitive **photoimageable/photopolymerizable** compositions

IN Weed, Gregory Charles; Fabricius, Dietrich Max

PA E.I. Du Pont De Nemours and Company, USA

SO Eur. Pat. Appl., 32 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM G03F007-031

.ICS G03C001-73; B41M005-36

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | EP 889363 | A1 | 19990107 | EP 1998-100692 | 19980116 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | AU 746399 | B2 | 20020502 | AU 1998-52167 | 19980120 |
| | AU 9852167 | A1 | 19990812 | | |
| | JP 11149154 | A2 | 19990602 | JP 1998-91870 | 19980403 |
| | US 2002064728 | A1 | 20020530 | US 2001-775988 | 20010202 |
| PRAI | US 1996-708476 | A | 19960905 | | |
| | US 1997-888242 | A | 19970703 | | |

OS MARPAT 130:102883

AB Novel **photoimageable/photopolymerizable** compns. are disclosed which contain dyes that absorb strongly in the near IR regions. These dyes are useful as **photosensitizers** for initiating a variety of **photoimaging** and **photopolymn.** reactions. Imaging media are disclosed herein which are sensitive in the near IR regions and which can initiate polymn. of ethylenically unsatd. monomer components in neg.-acting **photopolymer** systems and/or which can initiate conversion of leuco dyes to their corresponding colored dye form. These imaging media comprise either a near IR dye **photochem.** sensitizer, a hexaarylbiimidazole **photoinitiator**, a chain transfer agent, and a **photopolymerizable** material. These imaging media are useful in a variety of **photopolymer** products, including **photoresists**, proofing films, and holog. recording films.

ST **photopolymerizable photoimaging** compn near IR
; neg **photoresist photopolymerizable** near IR
; holog recording near IR **photopolymerizable** compn

IT **Photoimaging** materials

(near IR; **photopolymerizable** compns. contg.

IR dyes, hexaarylbiimidazoles, chain transfer agents, and ethylenically unsatd. compds. as)

IT **Photoresists**

(**photopolymerizable** compns. contg. IR dyes, hexaarylbiimidazoles, chain transfer agents, and ethylenically unsatd. compds. as)

IT Holography

(photopolymerizable compns. contg. IR dyes, hexaarylbiimidazoles, chain transfer agents, and ethylenically unsatd. compds. for)

IT Printing plates

(photopolymerizable compns. contg. IR dyes, hexaarylbiimidazoles, chain transfer agents, and ethylenically unsatd. compds. for color proofs for)

IT 55281-19-1 116188-88-6 219537-63-0 219537-64-1 219537-65-2
219537-67-4 219537-69-6

RL: TEM (Technical or engineered material use); USES (Uses)

(IR photosensitizer for photopolymerizable photoimaging compns.)

IT 103-01-5, N-Phenylglycine 128-37-0, Butylated hydroxytoluene, uses 479-59-4, Julolidine 868-77-9 1707-68-2 9003-17-2 9003-55-8, Butadiene-styrene copolymer 13048-33-4 15625-89-5, Trimethylolpropane triacrylate 25133-97-5, Ethyl acrylate-methacrylic acid-methyl methacrylate copolymer 28961-43-5, Ethoxylated trimethylolpropane triacrylate 34122-40-2, 1,4,4-Trimethyl-2,3-diazabicyclo[3.2.2]non-2-ene-2,3-dioxide 154482-21-0

RL: TEM (Technical or engineered material use); USES (Uses)

(near IR-sensitive photopolymerizable photoimaging compns. contg.)

IT 14134-81-7P 42952-29-4P 61224-41-7P 141914-99-0P 219537-50-5P
219537-51-6P 219537-56-1P

RL: RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(prepn. and reaction in prepg. IR photosensitizers for photopolymerizable photoimaging compns.)

IT 100498-66-6P 219537-49-2P 219537-52-7P 219537-53-8P 219537-55-0P
219537-57-2P 219537-58-3P 219537-60-7P 219537-61-8P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(prepn. and use as photosensitizer for photopolymerizable photoimaging compns.)

IT 74-89-5, Methylamine, reactions 75-03-6, Iodoethane 80-40-0, Ethyl tosylate 80-48-8, Methyl tosylate 120-92-3, Cyclopentanone 769-42-6, 1,3-Dimethylbarbituric acid 1640-39-7 2213-63-0, 2,3-Dichloroquinoxaline 2682-45-3, 2-Methylnaphtho[1,2-d]thiazole 3119-93-5, 3-Ethyl-2-methylbenzothiazolium iodide 6780-49-0, Ethyl isoformanilide 20048-92-4 76328-38-6, 3-Ethyl-6-methoxy-2-methylbenzothiazolium iodide 219537-54-9 219537-62-9

RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)

(reaction in prepg. IR photosensitizers for photopolymerizable photoimaging compns.)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Du Pont; EP 0437259 A 1991 CA
- (2) Du Pont Deutschland; DE 4240141 A 1994 CA
- (3) Kouichi, K; US 4636459 A 1987 CA
- (4) Mitsubishi Chem Ind; EP 0300410 A 1989 CA
- (5) Toppan Printing Co Ltd; JP 08297364 A 1996 CA

L9 ANSWER 4 OF 7 CA COPYRIGHT 2003 ACS

AN 128:154902 CA

TI Photocuring method by shielding oxygen on the surface of photocurable materials

IN Kamata, Hirotoshi; Watanabe, Takeo; Oga, Kazuhiko; Sugita, Shuichi

PA Showa Denko K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

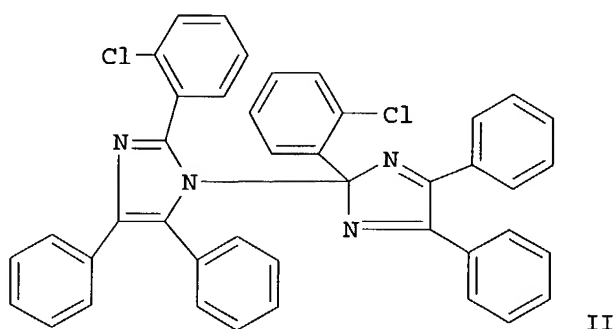
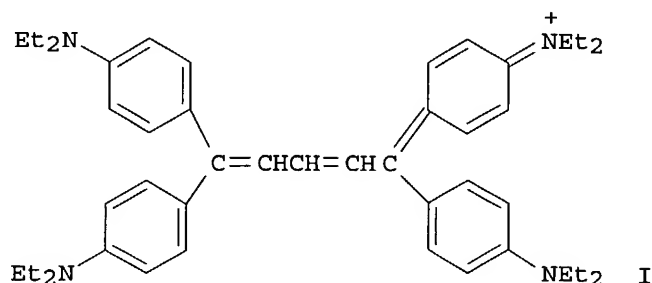
IC ICM C08F002-48

ICS B29C067-00; C08F002-44; C09D004-00; C09D201-00
 CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 42

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 10007707 | A2 | 19980113 | JP 1996-164728 | 19960625 |
| PRAI | JP 1996-164728 | | 19960625 | | |

GI



- AB A method includes applying aq. solns. of film-formable water-sol. org. polymers on the surface of **photocurable** materials to shield O in the air and irradiating with visible ray and near-IR ray. The films made from the water-sol. org. polymers can be easily removed after **photocuring**. Preferably, the **photocurable** materials contain (A) ethylenically unsatd. compds., (B) near-IR radical polymn. initiators, (C) visible ray radical polymn. initiators, and (D) .gtoreq.1 filler chosen from pigments, dyes, extender pigments, and fiber reinforcers. Thus, a compn. comprising Ripoxy SP 1509 75, styrene 25, talc 100, I butyltriphenylborate 0.10, tetrabutylammonium butyltriphenylborate 0.50, II 0.50, and 2-mercaptobenzothiazole 0.50 part, was poured into a mold, coated with aq. 5% Poval 217 (III) on the surface of the compn., irradiated, and freed of the III film to give a cured product having a tack-free surface.
- ST oxygen shield coating radical **photocuring**; vinyl ester styrene **photocuring**; polymn inhibitor oxygen shield
- IT Polyoxyalkylenes, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (PEO 15, coatings; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)
- IT Epoxy resins, preparation
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
 (acrylates, polymers with styrene, **photocured**; **photocuring** method by coating with water-sol. polymers for

shielding oxygen on **photocurable** compn. surfaces)

IT Polyesters, preparation
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
 (acrylic, **photocured**; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT Gelatins, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT Polymerization inhibitors
 (oxygen; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT Polymerization catalysts
 Polymerization catalysts
 (**photochem.**, radical; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT Coating materials
 Shields
 (**photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT Acrylic polymers, preparation
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
 (polyester-, **photocured**; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT Polyesters, preparation
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
 (unsatd., **photocured**; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT Polymers, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (water-sol.; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT 25322-68-3, PEO 15
 RL: TEM (Technical or engineered material use); USES (Uses)
 (PEO 15, coatings; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT 9002-89-5, Poval 217
 RL: TEM (Technical or engineered material use); USES (Uses)
 (Poval 217, coatings; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT 9003-39-8, Polyvinylpyrrolidone 9004-32-4, Carboxymethyl cellulose sodium salt 9005-25-8, Starch, uses 9057-02-7, Pullulan 28408-65-3, Poly(N-Vinylacetamide)
 RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT 14807-96-6, Talc, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (extender pigment; **photocuring** method by coating with water-sol. polymers for shielding oxygen on **photocurable** compn. surfaces)

IT 54847-75-5P, Rigolac 2141 115856-61-6P 115980-50-2P 137803-90-8P,

U-PICA 6424 202530-48-1P 202530-49-2P 202530-50-5P 202535-00-0P
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP
(Preparation); USES (Uses)

(**photocured**; **photocuring** method by coating with
water-sol. polymers for shielding oxygen on **photocurable**
compn. surfaces)

IT 199128-41-1P, Rigolac G 200GMA

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)

(**photocured**; **photocuring** method by coating with
water-sol. polymers for shielding oxygen on **photocurable**
compn. surfaces)

IT 7782-44-7, Oxygen, uses

RL: CAT (Catalyst use); USES (Uses)

(**photocuring** method by coating with water-sol. polymers for
shielding oxygen on **photocurable** compn. surfaces)

IT 99-97-8, N,N-Dimethyl-p-toluidine 102-71-6, Triethanolamine, uses

103-01-5, n-Phenylglycine 134-81-6 149-30-4,

2-Mercaptobenzothiazole 583-39-1 21245-01-2, Isoamyl

p-dimethylaminobenzoate 79044-56-7 96233-24-8 120307-06-4,

Tetrabutylammonium butyltriphenylborate 141714-54-7 159116-57-1

174285-64-4, Irgacure 1700 174914-36-4 184591-58-0 189947-80-6

189947-84-0 189947-86-2 189947-87-3 192642-08-3 202530-51-6

202530-52-7 202530-53-8 202530-54-9

RL: CAT (Catalyst use); USES (Uses)

(radical **photopolymn.** catalyst; **photocuring** method
by coating with water-sol. polymers for shielding oxygen on
photocurable compn. surfaces)

L9 ANSWER 5 OF 7 CA COPYRIGHT 2003 ACS

AN 125:88166 CA

TI **Photocurable** resin compositions for motor balance

IN Kishi, Katsuhiko

PA Three Bond Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08F002-48

ICS C08F020-10; G01M001-32; H02K015-16

ICA F16F015-32

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 42

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|----------|
| JP 08104705 | A2 | 19960423 | JP 1994-260940 | 19941003 |

PRAI JP 1994-260940 19941003

AB The compns. comprise (a) radical-polymerizable ethylenically unsatd.
compds., (b) inorg. fillers, (c) catalysts absorbing visible light, and
(d) heat-sensitive catalyst or (e) catalysts absorbing IR and
visible light. A compn. contained 40:60 epoxy acrylate-isobornyl acrylate
copolymer 100, glass beads 600, .alpha.-alumina 10, camphorquinone 1, and
BPO 0.5 part.

ST **photocurable** resin compn motor balance; epoxy acrylate copolymer
motor

IT Electric motors

Putty

(**photocurable** resin compns. for motor balance)

IT Glass, oxide

RL: MOA (Modifier or additive use); USES (Uses)

(beads, **photocurable** resin compns. for motor balance)

IT Polymerization catalysts

(radical, **photocurable** resin compns. for motor balance)

IT 1344-28-1, Aluminum oxide (Al₂O₃), uses

RL: MOA (Modifier or additive use); USES (Uses)

(filler; **photocurable** resin compns. for motor balance)

IT 78-67-1, AIBN 94-36-0, BPO, uses 103-01-5, N-Phenylglycine
 134-81-6, Benzil 465-29-2, Camphorquinone 33273-09-5
 RL: CAT (Catalyst use); USES (Uses)
 (**photocurable** resin compns. for motor balance)

IT 5888-33-5D, Isobornyl acrylate, polymers with epoxy acrylate
 RL: POF (Polymer in formulation); TEM (Technical or engineered material
 use); USES (Uses)
 (**photocurable** resin compns. for motor balance)

L9 ANSWER 6 OF 7 CA COPYRIGHT 2003 ACS
 AN 125:13535 CA
 TI **Photocurable** one-component putty materials
 IN Kishi, Katsuhiko
 PA Three Bond Co Ltd, Japan; Showa Denko Kk; Tokuyama Sekyu Kagaku Kk
 SO Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C09D005-34
 ICS C09D005-00
 CC 42-11 (Coatings, Inks, and Related Products)
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 08060044 | A2 | 19960305 | JP 1994-222678 | 19940825 |
| PRAI | JP 1994-222678 | | 19940825 | | |

AB Title materials contain (A) ethylenically unsatd. group-contg. compds.,
 (B) fillers, and (C) mixts. contg. UV-absorbing catalysts and
 heat-activating catalysts or (D) UV- and IR-absorbing catalysts.
 Thus, 100 parts polymer obtained from an epoxy acrylate and isobornyl
 acrylate was mixed with 150 parts talc, 1 part camphorquinone, and 1 part
 benzoyl peroxide, applied on an Fe sheet, and irradiated with a Xe lamp
 for 2 min to give a film.

ST **photocurable** ethylenically unsatd compd putty
 IT Dyes, cyanine
 Polymerization catalysts
 Putty
 (**photocurable** one-component putty materials contg.
 ethylenically unsatd. compds.)

IT 14807-96-6, Talc, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (fillers; **photocurable** one-component putty materials contg.
 ethylenically unsatd. compds.)

IT 78-67-1, Azobisisobutyronitrile 94-36-0, Benzoyl peroxide, uses
 103-01-5, N-Phenylglycine 134-81-6, Benzil 465-29-2,
 Camphorquinone 33273-09-5
 RL: CAT (Catalyst use); USES (Uses)
 (**photocurable** one-component putty materials contg.
 ethylenically unsatd. compds.)

IT 5888-33-5D, Isobornyl acrylate, polymers with epoxy acrylates
 RL: POF (Polymer in formulation); TEM (Technical or engineered material
 use); USES (Uses)
 (**photocurable** one-component putty materials contg.
 ethylenically unsatd. compds.)

IT 7439-89-6, Iron, miscellaneous
 RL: MSC (Miscellaneous)
 (substrate; **photocurable** one-component putty materials contg.
 ethylenically unsatd. compds.)

L9 ANSWER 7 OF 7 CA COPYRIGHT 2003 ACS
 AN 114:25295 CA
 TI Polymerizable fluorine-containing composition for biomedical use
 IN Purbrick, Malcom Donald; Bowers, Roderick William Jonath; Wagner, Hans
 Max; Bowen, Joanna

PA Kodak Ltd., UK; Eastman Kodak Co.
 SO PCT Int. Appl., 18 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM C08F220-00
 ICS C08F220-22; C08F220-56
 CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 9, 34, 35, 38

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 9007527 | A1 | 19900712 | WO 1990-GB13 | 19900104 |
| | W: CA, JP, US | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE | | | | |
| | CA 2024102 | AA | 19900707 | CA 1990-2024102 | 19900104 |
| | EP 403638 | A1 | 19901227 | EP 1990-901626 | 19900104 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE | | | | |
| | JP 03503182 | T2 | 19910718 | JP 1990-501512 | 19900104 |
| | US 5086138 | A | 19920204 | US 1990-571618 | 19900904 |
| PRAI | GB 1989-250 | | 19890106 | | |
| | WO 1990-GB13 | | 19900104 | | |
| AB | A title compn. comprises an ethylenic diluent monomer(s) (some of which is preferably F-contg.); an ethylenic monomer contg. a reactive ester group capable of coupling with an amino compd. to form an amide link; and a (photo)polymn. initiator. The amino group-contg. compd. may be a protein. Thus, a mixt. of acrylamide 4.97 g, 2,2,2-trifluoromethylacrylamide 5.01, methacrylamidocaproic acid N-hydroxysuccinimido ester 2.96 g, AIBN 0.06 g, and DMF 30 mL was stirred at 60.degree. under N for 5 h; the viscous soln. was dild. with DMF and kept overnight; and the polymer (I) pptd. into Et2O. A coating soln. prepd. by dissolving I (10% wt./wt.) in DMF and glutaraldehyde (10% wt./wt., band on polymer) crosslinker was coated in a polyester (Ester) with a gravure roller at 1-2 m/min gave a wet laydown of 2.5 mLs/250 cm2. A sample of dried, crosslinkable content product was treated with a soln. of albumin and IR anal. indicating coupling at the active ester sites in I due to amide formation. | | | | |
| ST | acrylamide copolymer coating affinity chromatog; trifluoromethylacrylamide copolymer coating affinity chromatog; methylacrylamidocaproic hydroxysuccinimido ester copolymer; albumin coupling polymer amide formation; photopolymn catalyst acrylamide copolymer prepn | | | | |
| IT | Ligands | | | | |
| | RL: USES (Uses) | | | | |
| | (amino compds., immobilization of, polymerizable fluorine-contg. crosslinkable compns. for) | | | | |
| IT | Amines, reactions | | | | |
| | RL: RCT (Reactant); RACT (Reactant or reagent) | | | | |
| | (coupling of, with fluoro copolymers contg. reactive ester groups, immobilization by) | | | | |
| IT | Amides, preparation | | | | |
| | RL: FORM (Formation, nonpreparative) | | | | |
| | (formation of, in coupling of amines with fluoro polymer compns. for affinity chromatog.) | | | | |
| IT | Crosslinking agents | | | | |
| | (glutaraldehyde, by fluorine-contg. copolymer compns., for affinity chromatog.) | | | | |
| IT | Amino acids, uses and miscellaneous | | | | |
| | RL: USES (Uses) | | | | |
| | (immobilization of, fluorine-contg. polymerizable crosslinkable compns. for) | | | | |
| IT | Proteins, uses and miscellaneous | | | | |
| | RL: USES (Uses) | | | | |
| | (immobilization of, polymerizable fluorine-contg. crosslinkable compns. for) | | | | |
| IT | Peptides, preparation | | | | |

RL: PREP (Preparation)
 (prepn. of, amino acid immobilization in, fluorine-contg. polymerizable
 compns. for)

IT Transparent materials
 (xerogel membranes for, **photopolymd.** fluorine-contg.
 copolymer compns. as)

IT Chromatography, column and liquid
 (affinity, sepn. by, fluorine-contg. crosslinkable polymerizable
 compns. for)

IT Gels
 (hydro-, hydrated membranes, from **photopolymd.** fluoropolymer
 compns.)

IT Polymerization catalysts
 (**photochem.**, for fluoro monomer-contg. crosslinkable compns.,
 for xerogels)

IT Polymerization catalysts
 (radical, in prepn. of fluoropolymer crosslinkable compns. for affinity
 chromatog.)

IT Gels
 (xero-, membranes, **photopolymd.** fluoropolymer compns. as)

IT 25038-59-9, uses and miscellaneous
 RL: USES (Uses)
 (film, xerogel-coated)

IT 103-01-5, N-Phenylglycine 67135-48-2
 RL: USES (Uses)
 (initiators contg., for prepn. of fluorine-contg. crosslinked compns.,
 for xerogels)

IT 131231-41-9P
 RL: PREP (Preparation)
 (prepn. of **photopolymd.**, for xerogel membranes)

IT 131212-63-0P
 RL: PREP (Preparation)
 (prepn. of, catalyst for)

IT 131212-64-1P
 RL: PREP (Preparation)
 (prepn. of, coatings, albumin reaction with)

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(FILE 'HOME' ENTERED AT 10:14:09 ON 05 MAY 2003)

FILE 'REGISTRY' ENTERED AT 10:14:14 ON 05 MAY 2003

L1 107 S N PHENYL GLYCINE
 L2 0 S N PHENYL GLYCINE/CN
 L3 0 S N PHENYLGLYCINE/CN
 L4 107 S N PHENYL GLYCINE
 L5 1 S 103-01-5

FILE 'CA' ENTERED AT 10:15:33 ON 05 MAY 2003

L6 6 S L5 AND (INFRARED OR INFRA ADJ RED)
 L7 311 S L5 AND PHOTO?
 L8 7 S L7 AND IR
 L9 7 S L8 NOT L6

=> log y

| | | |
|--|------------|---------|
| COST IN U.S. DOLLARS | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| FULL ESTIMATED COST | 45.51 | 81.96 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| CA SUBSCRIBER PRICE | -8.06 | -8.06 |

STN INTERNATIONAL LOGOFF AT 10:18:46 ON 05 MAY 2003